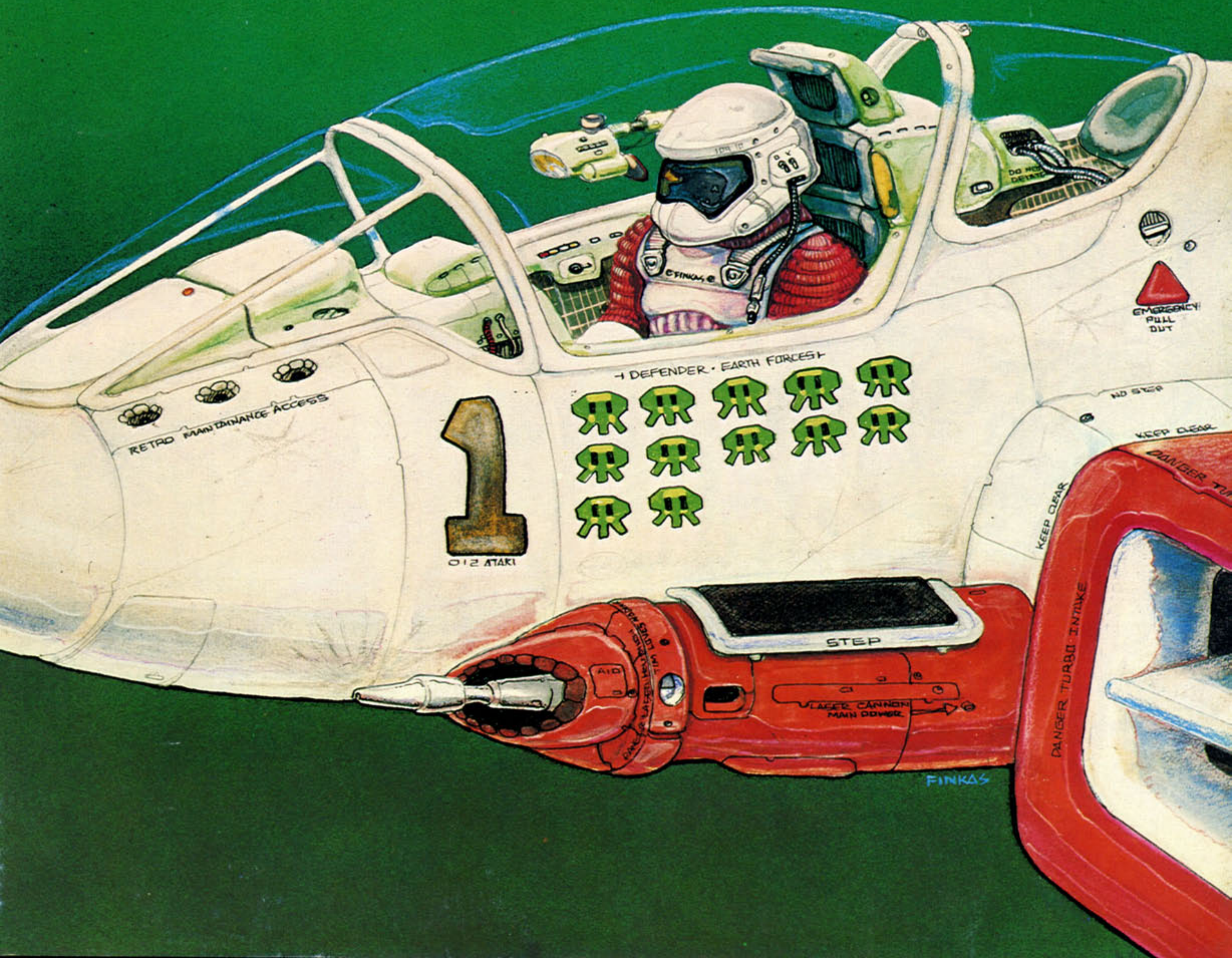
COMPUTER GAMING WORLD

VOL. 2 NO. 5

SEPT — OCT 1982

$2.75



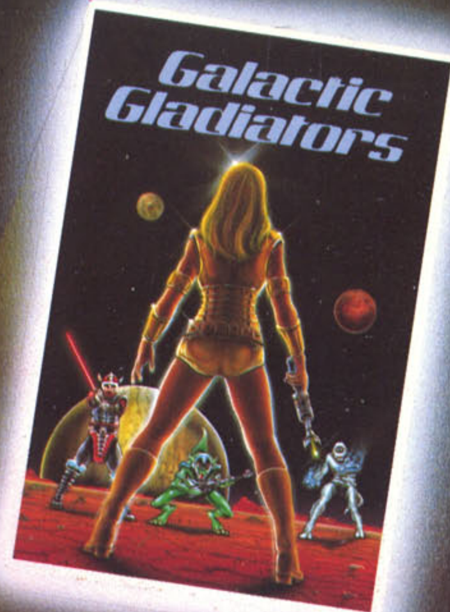


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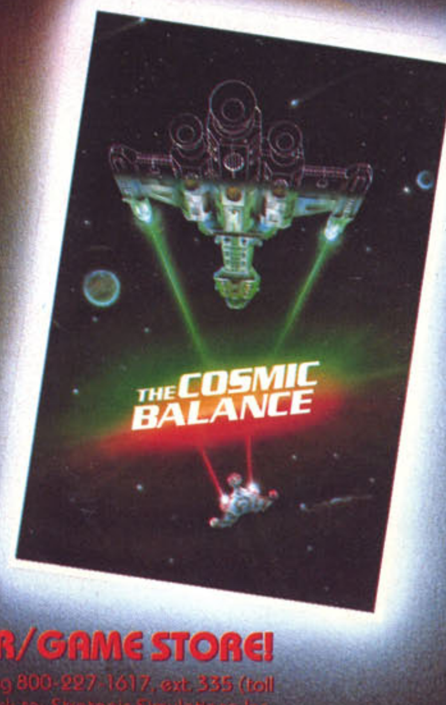


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If there are no convenient stores near you, VISA and M/C holders can order by calling 800-227-1617, ext. 335 (toll free). In California, call 800-772-3545, ext. 335. To order by mail, send your check to: Strategic Simulations Inc. 465 Fairchild Dr., Suite 108, Mountain View, CA 94043 (California residents, add 6.5% sales tax). Each game is $39.95.

From the Editor. . .

COMPUTER GAMING WORLD, with the publication of this issue, has completed it's first year of covering the computer gaming field. In this past year we have seen a tremendous growth in the hobby. Think back to what products were available to the computer gamer a year ago, then look at what is available today. There is quite a difference isn't there? What is exciting is that next year should produce even greater advancements. This does not mean, however, that 1983 will see the large increase of software houses that characterized 1981 and 1982. Given increased competition in the computer gaming industry and the state of the economy, it is increasingly more difficult to start a software house. This coupled with natural attrition in the business world means that we will see fewer companies in the next couple of years. However those companies that are around in two years will be stronger and better able to meet the demands of the marketplace.

COMPUTER GAMING WORLD has come a long way in the past year as well. Each issue has added new features and will continue to do so. COMPUTER GAMING WORLD has, in the year of it's existance become something of a voice for the hobby. Through reviews, columns such as *Silicon Cerebrum, Atari Arcade,* and *Real World Gaming* we have tried to provide you with enjoyable and informative information about the hobby. From your comments we know we are succeeding. Our *Reader Input Device* has become one of our most popular features. Through R.I.D. your voice can be heard by the hobby and industry.

CGW adds two new columns in this issue, INSIDE THE INDUSTRY, by Dana Lombardy (Associate Publisher of Game Merchandising magazine) and ROUTE-80 THE ROAD TO ADVENTURE, a new TRS-80 column by Richard McGrath. Although not appearing in this issue *Silicon Cerebrum* will be back in November — December.

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Features

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Psalm 9: 1-2

We can be contacted on The Source (TCL920)

Our phone number is (714) 776-4979

INSIDE THE INDUSTRY

by Dana Lombardy,
Associate Publisher Game Merchandising

For the first feature in this new column for CGW, we conducted a survey of 150 computer software manufacturers to fnd out what their best selling titles are.

Those who shared their sales figures with us appear on the chart on this page. It turned out that there's no relationship between the number of new releases and how many sales the publisher's top game will do. For example, *Adventure International*, which has sold primarily by mail order, introduced 55 new games in 1981 and their best-seller is REAR GUARD (December, 1981) with 3,400 copies sold. On the other hand, *Arcade Plus* made only one game in 1981 — GHOST HUNTER (November, 1981) — and they've sold over 23,000 copies, almost all through stores.

Obviously, selling through stores means more games sold — more of you have a chance to see a game and try it. If it's good, the repeat sales push it up to the top of the chart. But many of the mail order companies have good games as well. The numbers on the chart hint at the way a company sells their software: through stores or by mail. Numbers alone cannot tell you how good a game is.

One more note about the chart of best sellers: a clue to "hot" titles is their release date. CHOPLIFTER by *Broderbund* (May, 1982) and CANYON CLIMBER by *Datasoft* (June, 1982) are two examples of recent releases that could jump into the 20,000-plus category before the end of the year based on what they sold in just one month.

Some firms that don't release their sales figures still gave us interesting data. Atari's best-selling program through APX is EASTERN FRONT, a wargame — and the winner of "Best Adventure Game for Home Computer, 1981" from the *Academy of Adventure Gaming Arts and Design. Avalon Hill's* Microcomputer division's best-selling title is EMPIRE OF THE OVERMIND, an adventure game.

Even though action/arcade games like K-RAZY Shoot-Out (*K-Byte*) and RASTER BLASTER (*BudgeCo*) make up the majority of game software programs available, they don't totally dominate the market. The fact that Atari's and Avalon Hill's best-sellers are non-arcade types, and others on the top sellers chart — ZORK I *(Infocom)*, TEMPLE OF APSHAI (*Automated Simulations*), WIZARD & THE PRINCESS (*Sierra On-Line*), WIZARDRY (*Sir-tech*), CASTLE WOLFENSTEIN (*Muse*), APVENTURE TO ATLANTIS *(Synergistic)* are adventure games, points to how significant role-playing and wargame subjects are.

But no matter what types of games you prefer, the numerous software manufacturers are going to continue producing a variety of titles that will keep this a vital, growing, and always interesting hobby.

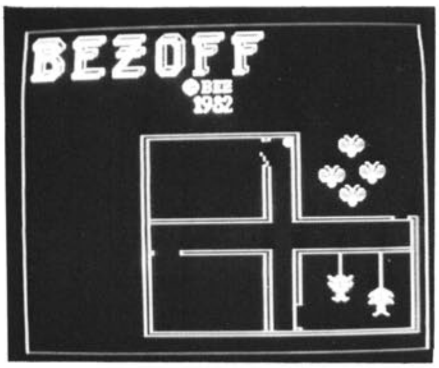
List of Top Sellers (as of 30 June 1982)

35,000	*K-RAZY Shoot-Out* (K-Byte, Jan. 1982)
32,000	*Zork I* (Infocom, Feb. 1981)
30,000	*Temple of Apshai* (Automated Simulations, Aug. 1979)
30,000	*Flight Simulator* (Sublogic Communications, Dec. 1979)
25,000	*Raster Blaster* (BudgeCo., April 1981)
25,000	*Wizard & the Princess* (Sierra On-Line, Aug. 1980)
25,000	*Snack Attack* (Datamost, Oct. 1981)
24,000	*Wizardry* (Sir-tech Software, Sept. 1981)
23,000	*Ghost Hunter* (Arcade Plus, Nov. 1981)
23,000	*Gorgon* (Sirius Software, June 1981)
20,000	*Ultima (California Pacific Computer Co., June 1981)*
20,000	*Super Invader* (Creative Computing Software, Nov. 1979)
20,000	*Castle Wolfenstein* (Muse, Sept. 1981)
15,000	*Apple Panic* (Broderbund Software, July 1981)
15,000	*Scarfman* (The Cornsoft Group, Aug. 1981)
15,000	*Pool 1.5* (Innovative Design Software, April 1981)
10,000	*Galactic Chase* (Spectrum Computers, Sept. 1981)
9,000	*Choplifter* (Broderbund Software, May 1982)
8,300	*Canyon Climber* (Datasoft, June 1982)
8,000	*The Warp Factor* (Strategic Simulations, Feb. 1981)
6,000	*Photar* (Softape, Feb. 1982)
5,000	*Pac Attack* (Computerware, Sept. 1981)
5,000	*Horizon V* (Gebelli Software, Feb. 1982)
5,000	*Dragonquest* (The Programmer's Guild., Jan. 1981)
5,000	*Asylum* (Med Systems, Feb. 1981)
4,500	*International Gran Prix* (Riverbank Software, Aug. 1981)
3,600	*Tax-Man* (H.A.L. Labs, Oct. 1981)
3,500	*Rocket Raiders* (Artworx Software, Dec. 1981)
3,500	*Apventure to Atlantis* (Synergistic Software, March 1982)
3,400	*Rear Guard* (Adventure International, Dec. 1981)
3,000	*Voyage of the Valkyrie* (Advanced Operating Systems, Aug. 1981)
2,000	*The Game Show* (Computer-Advanced Ideas, Oct. 1981)
2,000	*Stone's Reversal* (Powersoft, Nov. 1981)
1,000	*Swordthrust #1* (CE Software, May 1981)
1,000	*Hi-Res Computer Golf* (Avant-Garde Creations, Nov. 1981)
1,000	*ZX81 Classics* (Lamo-Lem Laboratories, Jan. 1982)
1,000	*Super Stellar Trek* (Rainbow Computing, Aug. 1981)

INITIAL COMMENTS

BEZ
4790 Irvine Blvd., Box 19633
Irvine, CA 92714

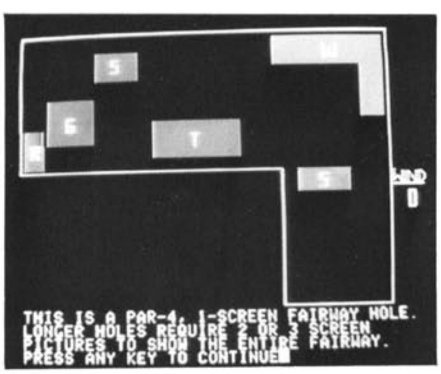
BEZ-OFF: An arcade game in which the player moves throughout his house and the yard killing spiders, ants, and flying insects. The player controls a boot to stomp ants, uses scissors to cut spider webs or the spiders themselves, and uses a can of insecticide to spray flying insects in the yard. Each segment requires a different type of hand-eye coordination. Apple II, $32.95.



* * *

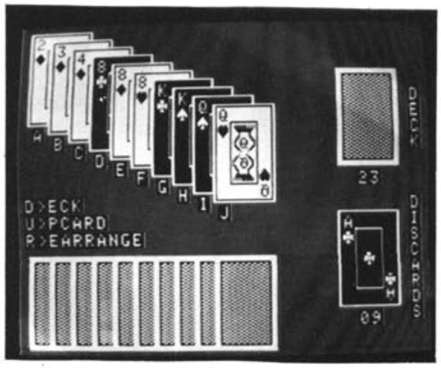
Avant-Garde Creations
P.O. Box 30160
Eugene, OR 97403

HI-RES COMPUTER GOLF: A detailed golf simulation in which the player(s) must not only use good strategy (e.g. where to hit the ball) but must also develop a good swing (guiding the stroke path with the keyboard).To play the game well you must learn to "read" the greens, "play" the wind, and make difficult shots out of traps and rough. A very challenging game. Apple II, $29.95.

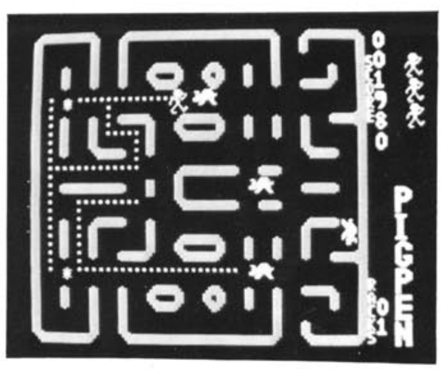


DataMost
9748 Cozycroft Ave.
Chatsworth, CA 91311

COMPUTER GIN RUMMY: A well done version of Gin Rummy in which you play against the computer. The program also includes two other rummy games; Knock and One-Meld. Apple II, $29.95.



PIG PEN: A maze - chase game in which from 1 to 8 pigs (you pick the number) attempt to slaughter you with their tusks. Instead of eating dots, your figure leaves dots behind, which help the pigs find you. The more pigs you choose to oppose, the higher your potential score. Apple II and IBM PC, $29.95.



* * *

Gamma Software
P.O. Box 25625
Los Angeles, CA 90025

SOCCER: A high-speed, video game for the Atari 400/800. The action is similar to their Hockey game with appropriate changes for the game of soccer. There are two four-man teams per side. One player is controlled by the joystick, the other three are "smart" players acting on their own. Offensive "smart" players run patterns attempting to position themselves for passes and scoring opportunities. "Smart" defensive players attempt to counter the offensive moves. $29.95.



* * *

Broderbund Software
1938 Fourth St.
San Rafael, CA 94901

SERPENTINE: A maze - chase game in which you try to eat "evil serpents" while keeping your own giant serpent, which you ride, from being eaten. SERPENTINE is an interestingly different kind of maze - chase game. Apple II, $34.95.



* * *

Rainbow Computing Inc.
9719 Reseda Blvd.
Northridge, CA 91324

RAINBOW GRAPHICS: A graphics package for the Apple II using a joystick with two push-buttons. The package has everything needed to create "quality" pictures in freehand, but also allows design of modular style drawings.

THE POOR MAN'S GRAPHICS TABLET: An assembly language graphics editor based on the Applesoft Internal hi-res subroutines. Shape table editing features are included. Black and white pictures prepared

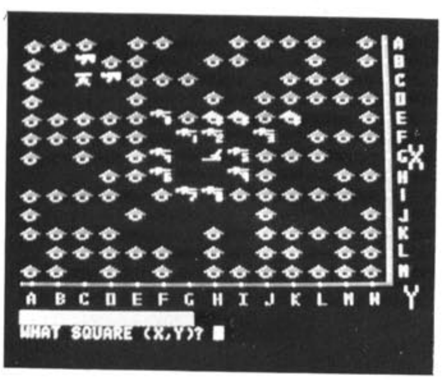
by the editor can be colored by a color editor featuring an almost unlimited number of hi-res colors. Most commands require only a single keystroke. Through the use of a keyboard hi-res cursor the monitor can be used as a sort of graphics tablet.



* * *

Avalon Hill Game Co.
4517 Harford Rd.
Baltimore, MD 21214

VC: A simulation of political/military warfare between guerilla forces (commanded by the computer), and pacification forces controlled by the player. The player controls ten ARVN units, a U.S. Airmobile Infantry Battalion, and a U.S. Artillery Battalion. The computer controls NVA and Viet Cong units. Both sides try to win the loyalty of neutral civilian population groups.The game runs on TRS-80 and Apple II computers.



* * *

Reston Publishing Company
Reston, Virginia

THE VISICALC BOOK (Apple Edition):
THE VISICALC BOOK (Atari Edition): Two good looking introductions to VisiCalc. Along with predictable chapters on subjects such as the Capabilities of a VisiCalc System; Commands; Labels, Numbers, and Formulas; you will find less predictable but more unique chapters on Recognizing, Preventing, and Correcting Errors; Creating Templates; and What Our Client, Secretary, or Supervisor Needs to Know: How Others Use our Templates Successfully. Hardback and Paperback.

* * *

Hayden Book Co.
50 Essex St.
Rochelle Park, NJ 07662

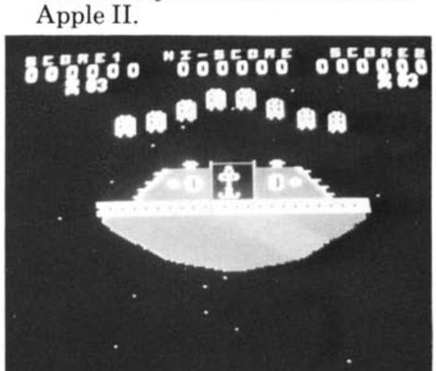
ALIBI: A detective game in which the player trys to determine who the murderer is, and where the murder was commited (the body was moved you see). You can question suspects, compile a notebook, and cross reference "stories" to reach your conclusion.

MATHEMATICAL RECREATIONS FOR THE PROGRAMMABLE CALCULATOR: A 322 page book containing a collection of recreational problems for programmable handheld calculators. The problems are grouped in three chapters. Chapter One is devoted to technique, developing methods useful in solving problems and building programming skills. Chapter Two explains numerical recreations and Chapter Three deals with mathematical games. $14.95.

* * *

Piccadilly Software Inc.
89 Summit Ave.
Summit, NJ 07901

FALCONS: An arcade game similar to the coin-op game *Phoenix*. Players must eliminate five types of enemy forces. Direct hits will destroy an enemy unit. A "wing" hit will only cause them to regenerate. The object is to break through to the Mother Ship and destroy the alien commander. Apple II.



Zeta Systems Inc.
1725 Adelaide Blvd.
Akron, OH 44305

TRAILBLAZER: The authorized computer version of Metagaming's Trailblazer board game. A multiplayer game of economic speculation in space.

* * *

United Microwave Industries, Inc.
P.O. Box 7336
Van Nuys, CA 91409

RENAISSANCE: UMI's version of the popular board game *Othello* (Gabriel Industries). Though the game can be played with one player against another, it is designed as a one player game against the computer. There are eight skill levels and a number of useful utilities. For example, a player can change sides in the middle of a game. He can take back a move, or set up special situations. The current position of the game, which runs on the VIC-20, can be saved on tape.

AMOK: Similar to the popular coin-op game Bezerk. Runs on the VIC-20 (cartridge).

* * *



MISSING NAME

Our last issue contained a letter under the heading "More Strategy for Eastern Front". The letter was written by David Myers of Austin, Texas.

Sorry for the error David.

HOBBY & INDUSTRY NEWS

Infocom will be releasing a new sci-fi adventure game by Dave Lebling sometime in October or November. The game will be called **STARCROSS. ZORK III** is scheduled for a late September release.

Game Designer's Workshop (P.O. Box 1646, Bloomington, IL 61701) has announced the formation of GameSoft, their new computer game division. The initial releases will include a computer version of their popular sci-fi role-playing system, **TRAVELLER**; computer versions of existing **GDW** games; and new games designed specifically for computers. First releases will run on the Apple II with later versions for the Atari and other computers.

SSI's **COSMIC BALANCE** is now out for the Apple II and the Atari version should be out by the end of September. Look for Atari versions of **CYTRON MASTERS** and **GALACTIC GLADIATORS** in October and November respectively. An Atari version of their popular **COMPUTER BASEBALL** may be out by Christmas.

BATTLE OF NORMANDY, a new division/regiment level game by SSI will be out in September. **BON,** by the authors of **TIGERS IN THE SNOW** and **BATTLE OF SHILOH**, will have scrolling graphics in the Atari and Apple versions. There will also be a TRS-80 version out about the same time.

SSI is presently play-testing Gary Grigsby's new game **MALTA** which is based on his outstanding **GUADALCANAL CAMPAIGN** system. The game may be released in November. Gary's third game will be **NORTH ATLANTIC MODERN SEA COMBAT**, a combined land, sea, and air game based on a fictional Russian overrun of the European Continent and Scandanavia.

Roger Keating (**SOUTHERN COMMAND**) is working on a new series of games for SSI entitled *When Super Powers Collide*. The first title will be **GERMANY 1985**. Other games in the series will appear at three month intervals. They are: **RDF** (Rapid Deployment Force); **NORWAY 1985**; and **BALTIC 1985**. Joel Billings of SSI describes the games as "similar to Southern Command but better".

AVANT-GARDE CREATIONS has appointed Robert M. Tappan as their Sales and Marketing Director and Steven D. Hanson as their National Sales Manager.

Avant-Garde Creations (P.O. Box 30160 Eugene, OR 97403) has announced a number of new utility programs. **HI-RES SECRETS GRAPHICS APPLICATIONS SYSTEM** ($75.00) by Don Fudge can be used alone or in connection with two other releases, **HI-RES ELECTRONIC DESIGN** ($29.95) and **HI-RES ARCHITECTURAL DESIGN** ($29.95). They have also released a program entitled **SUPER QUALITY EPSON HI-RES DUMP** ($25.00). All run on the Apple.

Broderbund Software has a new game designing utility program on the market entitle **THE ARCADE MACHINE. TAM** guides the user step by step though the process of designing his own computer arcade game (Apple, $59.95).

Hayden Software has added two new games to their list of Apple II games: **STAR TRADERS** ($19.95) and **KING CRIBBAGE** ($24.95). Star Traders is a game of intergalactic trade and King Cribbage is a computerized version of the old English card game.

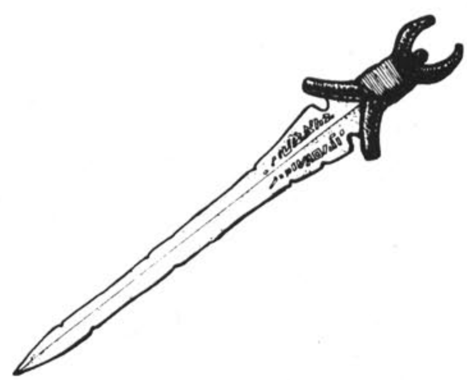
Alpine Software (2120 Academy Circle, Suite E; Colorado Springs, CO 80909) has introduced **LOVERS OR STRANGERS**, a game that is also a compatibility evaluator. The game/evaluator tells two people how "right" they are for each other, and how likely they are to have a successful relationship (Apple, $29.95). [Ed. Note - what do you do if you play the game with your spouse and the program tells you that you are not "right" for each other?]

Edu-Ware has announced the release of **PRISONER 2**, a new "state-of-the-art" version of their earlier **PRISONER** game. The game features hi-res graphics, animation, and sound effects (Apple, $32.95).

Sentient Software (1280 Ute Ave., Aspen, CO 81611) has announced a September release for the **IBM PC** version of their **CYBORG** sci-fi text adventure.

EPYX/AUTOMATED SIMULATIONS has moved to a new location, 1043 Kiel Court, Sunnyvale, CA 94086.

Computerware (Box 668, Manchester Ave., Suite 102, Encinitas, CA 92024) has released **EL DIABLERO** for the Radio Shack Color Computer and the TDP System 100. The adventure game is available on cassette ($19.95) or Disk ($29.95).

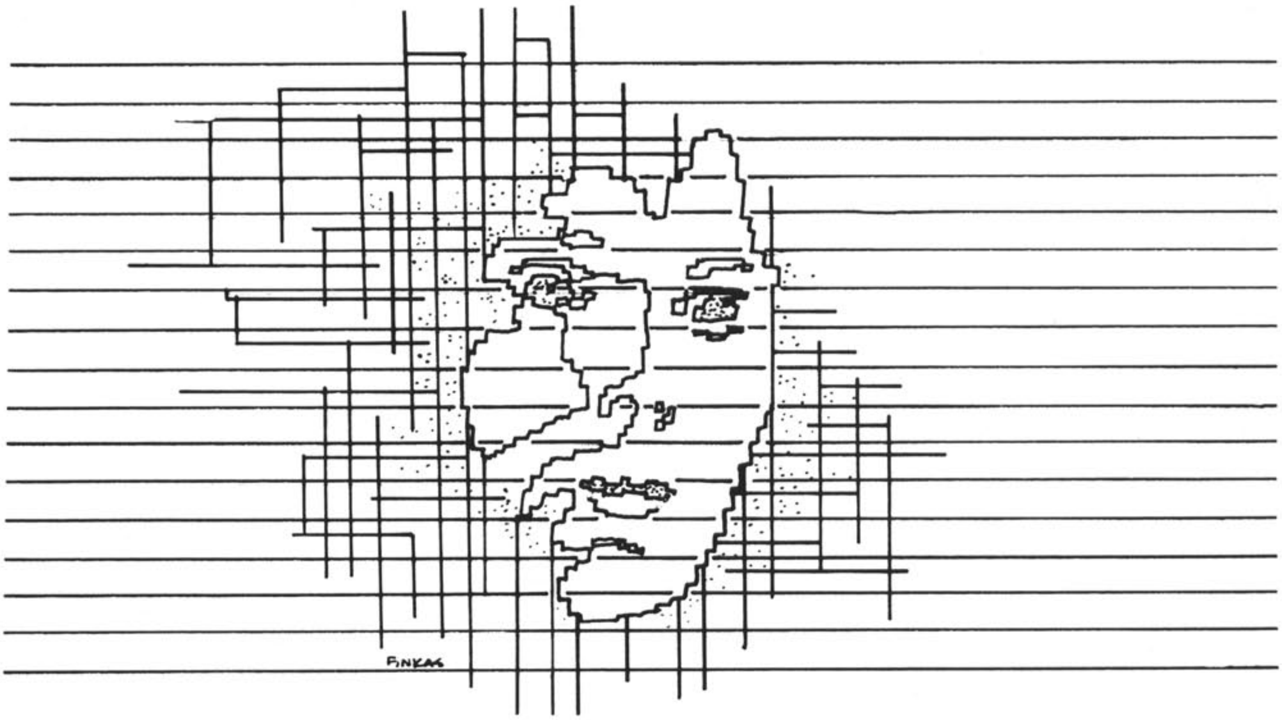


SILICON CEREBRUM ON VACATION

Silicon Cerebrum, Bruce Webster's popular column on artifical intelligence, is taking a brief vacation during this issue. SC will be back on it's regular schedule with our November — December issue.

LABYRINTHINE

Steve Rasnic Tem



Mark sat at his computer in a daze, half-asleep and illshaven, having been in the offices most of the night. His stomach growled loudly as he reached into the bag by his chair for another donut. The thought that he was beginning to go to fat; that he hadn't been out of his chair for several hours, tickled his brain then slipped silently away, leaving not a ripple of echo.

He enjoyed his work: programming was the first job he'd actually been able to stick with. He supposed he was most attracted by the raw power of the small machine; the complexity, the incredible number of different operations it could perform. As if the machine were the most interesting human being to which he could possibly talk. All at his fingertips! Pressing the keys allowed him to communicate with all that power. Actually, it sometimes seemed his computer was the only thing with which he could really communicate.

He stared at the screen. Something strange seemed to be happening...lines forming where they had no right to be. He rubbed his eyes. This sort of thing often happened, he knew, after a long stretch before the monitor. The eyesight started to go. He really should try those eye exercises Ellen had recommended. He just hadn't yet been able to get around to it.

He'd been working on this particular section of the project fourteen hours straight. He really should get across town and visit his parents...really should. But he hadn't the time. Anyway, it wasn't safe out on the streets. It seemed that everytime Mark went out, he was struck by something different: the streets full of broken pavements and potholes, the kids on the corners with their blaring radios and faces full of hatred, the barred store-front windows, the bottles and rocks flying past people's cars, and, a few weeks ago, being lost downtown because he'd been thinking about his project at work and, as if sleep-walking, had gotten off at the wrong stop...those two kids chasing him for blocks until he'd jumped onto another bus. They'd beaten on the bus doors and screamed with narrow, twisted mouths. He'd never seen anything like it.

"You have to be on your toes, Mark," Ellen was always warning him. She had this way of looking out for him. "The city will get to you if you aren't."

He tried to follow her advice, tried to concentrate on his surroundings when he was out there in the streets, but he was always lapsing into inattention. He had too much on his mind...he had the project on his mind...always.

The lines on his monitor thickened. Mark rubbed his eyes once again. They crossed, forming boxes, lanes. Impossible. Impossible...

"Ellen, could you come over here a second?" Mark looked plaintively up from his computer monitor.

Ellen walked over and glanced across his shoulder. She frowned. "How'd you get that?"

"I don't know. I was loading the text of the financial report's introduction for editing and I got this garbage."

A regular arrangement of horizontal and vertical gray bars of varying lengths broke up a yellow background. Ellen hummed softly in thought. "Well, it's not exactly garbage, but it shouldn't be there. Looks like part of a game." She chuckled and patted his arm. "Mark, are you sure that you loaded the piece, and didn't type something else?"

"Positive...and there's no game on this disk."

"Maybe you got the wrong disk out of the files. Let's see if we can't get a catalog." Ellen reached over the keyboard and tried punching keys, but the labyrinth stayed up on the screen. "I can't get it back to the menu," she said.

Mark gazed intently at the monitor. His eyes burned. He couldn't remember ever feeling quite so exhausted. But then, the small business financial package had kept him working overtime for weeks, and he hadn't gotten much sleep because he'd wake up every few hours and feel compelled to write down something. He had been outside the office or his home for all that time. He had hardly been aware of the changing seasons until the day before when the first snow fell. Ellen was always warning him he would ruin his health that way. He wasn't even sure why he didn't listen to her. He tapped several keys with luck similar to Ellen's, then said, "What if we turn the machine off and reboot?"

Ellen flipped the switch at the back of the machine. The screen went dead. Then she flipped it back on. The gray labyrinth blossomed into life, but more complicated this time, and a small dot seemed to be moving down one of the corridors.

Mark tapped the side of the monitor with his palm. The labyrinth jiggled; the small dot ran straight into a wall and disappeared. The screen suddenly went a bright red.

ONE MOMENT PLEASE!!! flashed across the screen.

Ellen stared at the screen, her lips pursed. "What the hell..."

The menu appeared on the screen, with its normal list of choices. Ellen reached over excitedly and typed out the command for a catalog.

"Only the normal utility programs..."Mark said, leaning closer into the screen. He thought about taking a walk; he hadn't just strolled for relaxation in some time. He knew that he was out of touch with the city, and the realization made him suddenly nervous. What would happen if he went out now, so out of practice? Perhaps the city would eat him alive.

***

The labyrinth reappeared several times during the following days, within many different programs, even on different disks. The only constant seemed to be Mark and his computer. It would not appear on another computer, even with Mark as operator, and it wouldn't appear on Mark's computer unless he was at the keyboard.

The firm brought in several specialists; the computer was taken apart and rebuilt piece by piece, but no one was able to find anything wrong with the machine. The final consensus was "Freakish Interference."

Mark got his computer back, and continued working on the financial analysis package he'd been hired to do. But he noticed that each time his concentration lagged, or he lapsed into the slightest daydream, the labyrinth was back, more convoluted with each new appearance.

"You know, it looks like a city to me, Ellen," Mark commented one day.

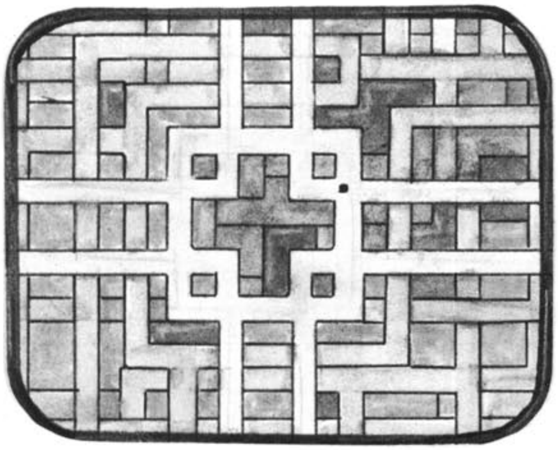
"How so. . ." she replied distractedly.

"The labyrinth. It looks a lot like the aerial view of some city. And that's a person moving around down there."

Ellen turned to him with a tired expression. "It's just a bug in the system, Mark. A weird one, I admit. But don't make too much of it. I. . .well, you've been putting a lot of time into that financial package. Don't take this the wrong way, but maybe you need to break for awhile." She reached over and stroked his hair. "I get worried about you. You know I enjoy this work, and sometimes I can get pretty obsessed with my job—enough that it's a little scary sometimes. But you're taking all this to a really unhealthy level."

Mark nodded his head slowly, hearing Ellen's words, though actually hardly aware of her presence. He'd wanted a vacation for some time now, but had never bothered to ask. Now he wasn't even sure he could let himself ask. He was too wrapped up in his work.

Mark stared back at the screen. He pressed closer, trying to make out any detail on the dot moving through the maze. He blinked his eyes, which made it look as if the dot had moving appendages.



***

During the next week the labyrinth — although Mark was thinking of it as "The City" now — appeared several times in his financial reports, and once even printed itself out with the Cash Flow report. He took one look at the artful arrangement of interlocking mazes on the roll of perforated paper and realized that the print-out had allowed the city to grow outside the limited boundaries of his monitor. He folded up the printed diagram carefully, surveying his surroundings with some guilt. Then, when no one appeared to be looking, he slipped it into his briefcase to take home.

When he reached home that evening Mark pinned the print-out to the wall facing his bed. Once again he neglected to do his dishes, or clean house; the garbage was stacking up in the kitchen, his clothes and magazines and scattered papers were everywhere. There was a message from Ellen on his answering machine, asking him over for a home-cooked meal, but he discovered he could hardly follow her voice, or understand the words, so intensely were his thoughts fixed on the labyrinth. He stared at the print-out for hours, occasionally getting up to examine a small section more closely. He was almost able to make out a little detail on some of the buildings.

But what puzzled him most was that within the immensity of that great city, there was still the lone dot moving aimlessly and lost. And now he was sure the dot had arms and legs.

***

Mark was increasingly aware that the others in his office were watching him now; observing him closely. Waiting to see what was going to come up on his screen next. And Ellen didn't seem to be speaking to him at all right now. He couldn't imagine what she was so angry about.

He was now so painfully aware of the immensity and complexity of the labyrinth that he was afraid to print it out again — horrified by the image of that strange city spewing out of the printer in reams, filling up the office, wrapping around the towering office building, and eventually trawling the streets of that greater city, clogging the traffic lanes and enveloping pedestrians in its garland-like embrace.

Apparently stymied by Mark's refusal to allow it outside the computer, the labyrinthine city began showing its monstrousness in other ways. Soon it was displaying a montage of close-up perspectives of itself, still shots taking tortured and distorted views of some of the thoroughfares and back alleys of the labyrinth. Peering at the twists and turns on his monitor gave Mark blinding headaches, but he felt compelled to watch them; compulsively glued to his computer so that he might not miss a single view.

He could see the moving dot, caught in stop-motion, and the detail a little more focused each time.

"Mark, I don't want to give you a hard time about it, but it really seems to me that your work is slipping." Ellen looked appropriately concerned, but Mark didn't have the time to deal with her troubles anymore; he was too busy examining the labyrinthine city. The views came rapidly now — approximately one per minute — and the moving figure seemed just a bit clearer each time.

"Everybody's noticed it, Mark," she said, with a little more emphasis. Mark found he could only nod his head slowly; he didn't have it in him to do more.

Ellen stalked away in frustration. The figure seemed to be dancing now, dancing down the narrow lanes with thick walls to either side. "Dancing in the streets. . ." Mark whispered dreamily.

That evening, Mark was so absorbed in his study of the labyrinthine city that he didn't go home. He stayed at the office all night. The views flashed by with a speed threatening to burn out the computer, as if the city were driving the machine to its own purposes. The diagrams, the mazes flashed by Mark's eyes until they blurred together, forming one vast and infinitely complex city in his imagination, a city that he might explore forever, much as the small figure seemed to be doing.

It occurred to Mark finally that the complexity of the city must in some way mirror the complex, labyrinthine nature of his own mind. Certainly Mark had developed a unique, intimate relationship with his computer. It was, in a way, his best friend.

As the figure moved frantically back and forth, down this street and up still another, seemingly desperate to explore every inch of the maze, Mark became convinced his theory was correct. He felt suddenly desperate to see the entire city, and the small figure's present position in it.

He went to the printer and turned it on. With a loud buzzing like some great bestial sigh of relief, the computer unloaded its contents into the printer.

The office appeared quiet and empty when Ellen arrived at work that next morning. Despite herself, she made an audible noise in her throat when she entered the computer section. Reams of print-out covered the aisles and looped up on the desks across consoles. She gathered some of it in her arms and examined it. It looked like Mark's labyrinth.

She pushed large piles of the paper out of her way as she crossed to Mark's computer. The machine was still on, but she couldn't find Mark anywhere.

When she went back to his computer she saw that his labyrinth was displayed once again on the screen.

She slumped down into his chair, trying not to laugh, but unable to help herself. It wasn't really funny though, she thought; they'd surely fire him for this.

She looked up at the monitor.

There was a small dot moving through the maze. She leaned forward and examined it more closely.

Now a second dot joined it, or rather, appeared to be following it; chasing it through the labyrinth. The second dot stopped, suddenly, right before her nose. It seemed to be moving up and down, jumping on the screen. She could barely make out just a hint of an appendage. It seemed to be beckoning...

SOFTWARE PIRACY: THE SLAYING OF A HYDRA

Roe R. Adams, III

Software piracy is a hydra-like problem: no matter how many heads you cut off, more spring up. The way, however, to kill the hydra is to strike at it's heart, not it's heads. When all the smoke and fire of the agruments on both sides are striped away, the core of the problem remains, the price structure. The individuals who break both their own moral codes (against stealing), and the legal codes (against copyright violations), primarily do so as a rebellion to what they perceive as price gouging by the software publishers. There is a widespread feeling among personal computer owners, of all brands, that the software is enormously overpriced. Not unnaturally, the software publishers protest that they are just trying to cover costs. (It is interesting to note that rarely does a publisher say they are just barely eking out a profit from a successful game or program.) The reality of the matter is that both sides are actually correct. The problem of high prices does come from what the publisher perceives as his costs, and it is that perception of cost that is the heart of the hydra.

Many software publishers have admitted both publicly, in articles and speeches, and privately in conversations, that the main reason they price their software up so high, is to try and recover their costs as quickly as possible. The reason for this sense of urgency is the spectre of the dreaded, omnificent Software Pirate whom, they feel, will give out a free copy to every computer owner in the world. Thus every dollar has to be earned today, before the market is glutted with free copies. Indeed, in the infancy of personal computers, when most programs were public domain, and freely traded among individuals, the whole marketplace was only a couple of thousand and piracy had a killing effect on sales. Many of the top authors and publishers first tried to earn a living in that microcosmo, and really struggled. They tell tales of how Software Pirates stole their market, by giving their software away. To some of these same top people, Software Pirates have achieved the status in their minds of the "Red Menace" of the 1950's. This corporate paranoia is reflected in the wave after wave of new copy protection schemes in the last two years. The effect that all this effort and emphasis has had on prices is equally apparent. In any normal industry, when the base of users is increased expotentially, prices drop as increased sales enable cost-effective procedures to be employed. In the software industry, the reverse has happened. Despite one of the greatest growth curves in America's history, software prices in the last two years have risen from an average of $19.95, to $29.95, to $34.95, and now many are at $39.95 and $49.95. A very disturbing new note - a series of very professional disks, aimed at young children, has just been released. They bear the incredible pricetag of $60-$75 for most of the single-disk programs. The heart of the hydra is indeed pervasively black.

The real threat to the software industry lies not in the individuals or small groups, but in the professional, organized copiers — the people who duplicated for profit. These pros duplicate the disks, the labels, and the documentation. Then they sell these "originals" to stores and through mail order. The record industry went through a series of scandles about this several years ago. One of the major studios that found around forty percent of all their authorized returns from the stores, were counterfeit. When several prominent record stores around the country were raided, large sections of their inventories were proven to be counterfeit. The record industry has hardly wasted a moment worrying if you are taking that record home and taping it over for a friend. Their worries are much, much larger.

Just recently in the booming video market, this same cancer has been spreading. This industry has tried copy-protection, and basically has given up on non-commercial coping. They are devoting all their efforts, and the assisting efforts of the F.B.I., on any person or company selling conterfeit tapes. A really innovative solution has recently surfaced to combat this problem. A company has found a way of making very thin plastic optical disks, that bear (so they hope) an uncopyable logo, much like a bank note. These disks are affixed to each package by the manufacturer and are not transferable from package to package. Thus the consumer can readily identify that they are buying an authorized product.

The real heart of the hydra is the fact that for a two dollar disk, and five to ten dollars worth of cost, a two to five hundred dollar can be duplicated and resold. That is a tremendous margin that will draw those same duplicators into computer software, as it did into records and video. Several farsighted firms are taking steps to combat what will be the REAL problem of the next five years. Several of them are putting onto each disk serial numbers, to aid the F.B.I., in tracking down the software pipeline. Infocom (Zork, Deadline, Starcross) has tackled it from a different angle. Their are using extensive supplemental merchandising and packaging to deter piracy. Their approach is to make the extra "goodies" so attractive, that people will want to buy their product to get them, even when they could obtain a "free" copy. In a like manner, Avalon Hill and Strategic Simulations have been putting playing boards and counters in with their disks.

Historically though, in the final analysis, it will be through the deportation of software, that the companies will finally be able to protect themselves from the professional copiers. By not spending so much of their time, talent, and dollars on protection, the software publishers will be able to start lowering the price of their software. The more the price comes down, the less the interest in the software by the professional pirates. This is illustrated in the September 6 issue of InfoWorld where Dick Brass, president of Dictronics, states that "The Orient is going to be the source for all kinds of pirated products, from Rolex watches to designer jeans to computer software. This will happen if prices of the original are exploitive. You've got to price

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MISSION 5—COMPLETE

STAR BLAZER REVIEW

by Barry Gittleman

BASIC INFORMATION

NAME:	Star Blazer
TYPE:	Arcade
SYSTEM:	48K Apple II Integer
FORMAT:	Disk
# PLAYERS:	1
AUTHOR:	Tony Suzuki
PRICE:	$31.95
PUBLISHER:	Broderbund Software 1938 Fourth Street San Rafael, CA 94901 (415) 456-6424

"There is evil on the loose, and men and women of good will are on the run. The galaxy is in the grip of the repressive Bungeling Empire, and the people have little hope. What hope they do have is based on the old legends. These legends tell of a time when there were nuclear families, not nuclear wars; a time when you didn't need to register microcomputers with the government; a time when a brave warrior went into hiding from the growing dark clouds of the Bungeling expansion. The legends tell of one they called STAR BLAZER.

You remember now don't you, all those years ago? You've hidden your identity from your friends and family, just like you are hiding the unregistered micro which you are about to put this disk into. This is our last chance, Star Blazer. If you fail us we will probably all end up in the gumbelum mines.

Your mission is not an easy one. You've hidden away that vintage WW III jet of yours which you'll need to clear away radar stations, avoid supersonic tanks, find and destroy ICBM installations, and escape heat-seeking missiles and explosive sky-mines as you make your final bomb run on the Bungeling Empire Headquarters." (quoted from material published with the game)

STAR BLAZER is another excellent, two-dimensional, space game by Tony Suzuki. You, as the Star Blazer, are the galaxy's last hope to destroy the Bungeling Empire. You have been given five missions: 1) Bomb the Radar; 2) Attack the Tank; 3) Bomb the ICBM; 4) Attack the Tank; and 5) Bomb the Headquarters. You are given three ships, each with a fuel capacity of 3,000 gallons, and a bomb load of 30 bombs. Supplies may be replenished by catching your supply package, which is dropped off periodically by a supply ship. Additionally, you have a pulse cannon to supplement your bomb load.

The game can be played with either the keyboard or a joystick, although it is much more difficult with the keyboard. Pause and sound on/off options are available. There is only one fire button, therefore, whether you fire bombs or pulse cannons is determined by your altitude. If you are flying low (below the height of the towers), you drop bombs by pressing the fire button. If you are flying above this height, you fire pulse cannons, which drastically diminish your fuel supply.

There are several obstacles in each mission which become increasingly difficult as you go. In your first mission, there is little to avoid. This mission can be used to practice flying if you are new to the game. The only difficulty is dodging the towers which protrude into the sky. These towers often surround radar installations, and you must find a way to get bombs in between the towers around the installation without crashing into them. The towers may not be shot with pulse cannons. You also must avoid dropping bombs on the trees in this mission. For some reason (perhaps Tony Suzuki loves trees), trees do not explode when hit by bombs, and you loose 20 points.

The second mission is very difficult for beginners, but when the secret is learned, it can be completed in a few seconds. You are to drop a bomb on a supersonic tank that is faster than you are, while avoiding kamikaze planes. The planes are quite easy to avoid, for there is a limit as to how low they may fly, and you can fly below that. The tank, however, is quite difficult to sneak up on. You must fly past it above your lowest altitude, and drop your bomb *on the way down.*

The third mission, in which you bomb the ICBM, is one of the easiest, but you must watch your fuel supply constantly. The major obstacles here are the explosive sky mines left by the planes. Most of your time in this mission will be spent shooting down mines and planes with pulse cannons. If you do not, a large number of planes will accumulate, leaving a great number of mines to avoid. The answer is simple—shoot'em. But remember, firing pulse cannons is like pouring out fuel. It is wise to limit firing when fuel load is below 1500 gallons, and to stop firing when fuel load is under 800. One difficulty which has been the death of many in this mission is the duck. That's right—the duck. There is a small blue duck that, from time to time, flies by and tries to steal your supplies. He can't be shot. You just have to get to your supplies before he does, which is difficult when dodging planes. In mission four, "Attack the Tank", you have your first encounter with heat-seeking missiles. This tank is just as fast as the first one (use the same trick on him), but he fires missiles that follow you everywhere, until they run out of fuel. The missiles are faster than you, but they can't turn as quickly. Remember that. There is little advice that will aid poor Star Blazers in this one. Stay low to avoid the planes, shoot the missiles when they are in front of you, and pray.

Mission five is the ultimate. Large blue planes cover the sky and leave sky mines across the screen. Small, ground missile stations fire heat-seeking missiles constantly. Towers make bomb runs difficult, and the headquarters area has increased defenses. It looks like a white air-traffic controller tower, almost

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STAR WARS MEETS GALACTIC GLADIATORS

One of the best features a strategy oriented computer game can have is the ability to create your own scenarios. GALACTIC GLADIATORS (GG) from SSI is but one of several games that has a scenario building feature. (See the INVASION ORION article for another).

GG is a game of space age combat between groups of individual warriors. Fourteen different species can fight against each other in a variety of terrain settings. The scenarios provided with the game serve to introduce the various races, weapons, and terrain types. After learning the game mechanics, the gamer will want to begin designing his own scenarios.

We offer a scenario for GG based on the movie STAR WARS (copyright Lucasfilm Ltd., 1982). Remember the opening scene of Star Wars? The Imperial ship fired back to some object behind the audience and we saw laser fire coming in from above the screen. We were overwhelmed when we saw the emmense imperial battleship pass over us and fill the screen. The rebel ship is disabled and a boarding party begins to burn through the hatch as the rebel warriors prepare for the onslaught. — As the outer hatch is blasted away, our scenario begins.

"SECURING A REBEL SHIP"

The map in figure 1 provides the setting for the scenario. One of the weaknesses of GG is the fact that you only have limited control as to where units start. The large open area to the left of the rebel ship is necessary to prevent the computer randomly placing imperial troops within the rebel ship at the start. When the player selects the "choose initial placement" option, the computer will randomly place your units on your side of the board and you can then move them. Unfortunately,

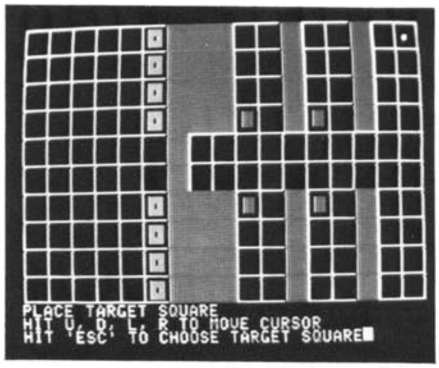


Figure 1

because of terrain features, the placement may be problematic as in our scenario. Another limitation on the set-up procedure is the fact that you can only set up units a limited number of squares towards the center of the battlefield. The rebel units in this scenario can be no further forward than the doorway nearest the bulkhead. The problem is more acute in scenarios in which one team chases another team. There are several scenario possibilities from Star Wars which are limited by this problem.

Team #1 should be made up of 4 or 5 rebels. The rebels must defend the target hex in the upper right hand corner. The 4 or 5 imperial stormtroopers start on the left (outside the rebel vessel). The troopers must blast a hole into the ship (probably through the 1 square thick hatch area). Then, troopers dressed in their light armor, make their way down the hallway, firing, loading, and blasting. The rebels lack the armor but have the advantage of firing from behind the partial block corners as well as not having to move.

TEAM	#	RACE	WEAPON#1	WEAPON#2	ARMOR
Imperial	4 or 5	Human	Heat ray (one warrior)	Phasor	Light
			Phasor (the rest)	Hands	Light
Rebel	4 or 5	Human	Phasor (all warriors)	Hands	None

The basic number of combatants on a team should be four. The fifth member can be added to balance one side or the other. The computer opponent in GG is not that great. If you play against the computer you may find it necessary to change the play mode and command the computer's team for a turn or two to get it out of trouble (a nice feature). for example, if the computer plays the imperial team in this scenario, the warrior with the heat ray gun will change weapons on the first turn rather than blasting the door.

Victory conditions are as per the game's built-in scoring system. The average number of turns to resolution is twenty. You might want to play with a "rush" variation. The imperial team must get to the target square by the 15th turn or face the wrath of Darth Vader (you were too slow).

When warriors have the same speed rating, the computer will choose the order of movement randomly. This can be a problem when you are in tight quarters such as a spaceship corridor. It is most frustrating to order four warriors to move and watch the two behind try to move first and waste their move bumping into the leaders. The best you can do is try to stagger the warriors in such a way that each has a clear path of movement (I know; it's impossible).

* * *

The weaknesses already mentioned aside, GALACTIC GLADIATORS is a noteworthy game. Using a game system which is similar to ones that many board gamers have played, GG brings to the world of the Apple computer a playable and fast moving combat game system. The flexible nature of GG (team types, weaponry, terrain) along with the scenario designing routines should combine to keep GG interseting long after other games are gathering dust on the shelf. Send in those scenarios, folks.

HEROIC FANTASY: An Interactive Role-Playing Game

or "How Revenge is Going to Be Sweet"

by Graham Masters Jr.

Although the name FLYING BUFFALO (FB) may be new to many computer gamers, it will instantly be recognized by most traditional board gamers and role-players. FB, located in Arizona, has been involved for a number of years in board, fantasy, and play-by-mail (PBM) games.

COMPUTER MODERATED PLAY-BY-MAIL GAMES

FB's PBM games are, for the most part, moderated by computers. STARWEB (SW), their most popular PBM is run on a Raytheon 704. One of their newest entries into the PBM gaming field, HEROIC FANTASY (HF), is run on a North Star Horizon.

These PBM games allow people from all over the country, and the world, to play against and with one another as they seek to conquer the universe or gain untold wealth and experience in fantasy dungeons. SW, which presently is being played by more than 1800 people in over 130 games, utilizes as one of it's character types "The Berzerker" (based on Fred Saberhagen's popular *Berzerker novels*). In turn Saberhagen has written a sci-fi novel based upon SW. Entitled *Octagon* (Ace Books, 1981), the book deals with a series of murders which are somehow related to the playing of a SW game. Mysteriously, various people in one particular SW game begin to be murdered. If you are a gamer and/or sci-fi fan, you will find *Octagon* entertaining reading.

A newer PBM game is HEROIC FANTASY. Starting with their popular *Tunnels and Trolls* role-playing system, FB developed a fantasy role-playing game that could be moderated by computer. The result, HF, is an interactive fantasy game in which several players are thrust into the same dungeon, each initially unaware of the presence of others. Playing the game involves each player sending in orders for his party (which was formed prior to the adventure — the characters coming from traditional fantasy races such as Elf, Dwarf, Human, Ogre, etc.). In the course of the adventure players will stumble upon one another. Actions at this point tend to take one of two directions: 1) talk first and hope the other side is friendly; 2) Attack without warning. This writer learned the hard way that option one can be a big mistake when the other player chooses option two. More on that later.

PLAYING THE GAMES OVER THE SOURCE™

FB has both HEROIC FANTASY and STARWEB set up so that users of The Source™ telecommunications network can play the game over the network. This writer recently took a party of six brave adventures into a HF game seeking fame and fortune. Playing two turns per week (other HF games are set up for one turn every week and one turn every two weeks) I used *The Source* to enter my orders and to receive turn results. Playing over *The Source* makes the game a little more expensive but as a computerist, I find the game more interesting when played in this manner. Turn fees are normally $2.00. Using *The Source* adds 50 cents per turn.

SOME GAME MECHANICS

My party entered an on-going game on turn 29. My first few turns were not very eventful. This gave me some time to figure how the game mechanics worked. The game system allows each character (there were six in my group) to enter one minor

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(LEVEL 1)  CHARACTERS=2  PARTY VALUE=38
(YOU MAY ENTER A RESCUE PARTY:  CHARACTERS=13  POINTS=62)
################################################################################
BRIGHT ROOM
DOORS: (NORTH 2), EAST 25, SOUTH 5, ------.
--------------------------------------------------------------------------------
CHARACTERS WHO LEFT HERE:
* (C44) BRONWYNN: FEMALE HUMAN FIGHTER, MOVES (3) NORTH.
* (C105) ADMON FAYE: MALE OGRE FIGHTER, MOVES (3) NORTH.
- (C190) BASEL: MALE HUMAN, ARRIVED FROM SOUTH, MOVES NORTH.

################################################################################
WHITE ROOM  (DEAD BODY)
DOORS: NORTH 7, EAST 2, (SOUTH 2), ------.
MONSTER: BROWN BEAR.  ASLEEP
  P40: POTION  P132: POTION
--------------------------------------------------------------------------------
* (C44) BRONWYNN: FEMALE HUMAN FIGHTER, ARRIVED FROM SOUTH.
  STR=15  CON=30  EXP=240  PRIZES=1
  "OH NO, NOT OUR BELOVED LEADER! DEATH TO THE METERS."
  P8: HEALING POTION (USE ME)=100

- (C48) THERMO METER: MALE GOBLIN, TAKES POTION, USES POTION, ATTACKS
  ROSHA (C50).

- (C50) ROSHA: **DEAD** MALE OGRE FIGHTER, TAKES 40 HITS, TRIES TO USE
  STRENGTH POTION, ATTACKS (35) ODO METER (C86).
  STR=35  EXP=120
  "IS THIS HOW YOU TREAT OVERTURES OF PEACE? DEATH TO THE METERS."

- (C51) SERPHIMERA: **DEAD** FEMALE HUMAN MAGIC-USER, TAKES 34 HITS, TRIES TO
  SLEEP SPEEDO METER (C67).
  STR=10  EXP=45  (SPIED)  "DEATH TO THE TREACHEROUS METERS!!"

- (C67) SPEEDO METER: MALE OGRE, TAKES POTION, USES POTION, ATTACKS
  SERPHIMERA (C51).

- (C74) MILI METER: FEMALE ELF MAGIC-USER, TAKES (0) SILVER RING, SPIES (0)
  SERPHIMERA (C51), ATTACKS (18) PEZI (C107).
  STR=20  CON=5 (25)  EXP=111  (SPIED)  PRIZES=1
  SILVER RING=100
- (C86) ODO METER: MALE OGRE, TAKES 34 HITS, TAKES POTION, USES POTION,
  ATTACKS ROSHA (C50).

* (C105) ADMON FAYE: MALE OGRE FIGHTER, ARRIVED FROM SOUTH.
  STR=35  CON=40  EXP=295  PRIZES=1  "ARRGGHH!! DEATH TO THE METERS."
  P115: STRENGTH POTION (USE ME)=100

- (C107) PEZI: **DEAD** MALE LEPRECHAUN MAGIC-USER, TAKES 17 HITS, SPIES (2)
  MILI METER (C74).
  STR=3  EXP=45
  "THOUSANDS WILL HEAR OF YOUR TREACHERY! DEATH TO THE METERS!!"

- (C190) BASEL: MALE HUMAN, ARRIVED FROM SOUTH.
  "WHEW!  THAT ROOM IS CROWDED!"

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ATARI: EXPLOITING THE HUMAN CONNECTION

by David Myers

Every computer gamer has a favorite game. And I'll bet that every computer gamer also has, somewhere in the back of his mind, an *ideal* game. Maybe this game is some weird combination of the three popular W's: *Wizardry, Wolfenstein,* and *Warp Factor*. Or perhaps (for us Atari fanatics) its an advanced version of *Eastern Front* — one where you look out the turrets of your panzers and actually see those determined Ruskies coming at you over the hill. . .

Whenever I load in a brand new game, I get visions of my ideal game. I get a rush, thinking that maybe this is the one, maybe this one is going to be *really* good, *really* fun.

But it doesn't happen.

Or else it does happen — for the first couple of playings — and then that elusive "fun" factor slowly fades away.

Many of you have shelves *full* of computer games — few of which are replayed with any regularity. And many of you may, like me, feel that even while you're playing your favorite computer game, something is missing. If you're like me, then your favorite game and your *ideal* game are still far apart.

Why?

I don't believe that it's because of the lack of appropriate hardware on which to design games. My *ideal* Atari is not my current 800, but the game-player interface is improving all the time — and already it's user-friendly enough for me. Nor do I think it's because of any lack of skill or intelligence on the part of the best game designers. Their creations are clever, make good use of machine capabilities, and can be both fun *and* informative.

But there is a problem. And I believe the problem lies in a lack of vision, a lack of clear-cut *direction* on the part of the game designers. Sure, the computer game industry is moving fast — so fast that few can keep up with it — but I often wonder if it's going anywhere in particular, not to mention getting anywhere in particular.

Let me explain myself. Game designers have always been influenced by games, not by gamers —and this confuses an effect for a cause. The proof is in your local game store. There's *Pacman, Scarfman, Ghost Hunter, Jawbreaker,* and nauseaum — some better, some worse, all similar. The first computer game of renown, Pong, was a derivative of hockey/tennis. Now we have much better derivatives — tennis balls that casts shadows on the court, and hockey games with stickhandling and passing — but we still have derivatives.

Even Eastern Front — my favorite computer game — is (I almost hate to admit it) a board game derivative.

So what's the answer? The answer is more consumer research into the psychology of gaming, and more attention paid to the growing community of gamers by the game designing industry. And here, by the way, is where a magazine like *Computer Gaming World* can be truly useful — in providing a forum for gaming interests, and helping to shape the future development of the industry through the ideas and opinions of the people who matter most — you and me, pal: the gamers.

Fortunately, Atari seems to be taking this tack. Their marketing approach is strongly oriented toward the general public and can only help to humanize the field. Much has been made of computer games which use all the capabilities of their host machines. Equally important are games which make use of all their *players'* capabilities. In fact, in this instance, the aim is much more important than the arrow.

The *ideal* game will not overly concern itself with new and unique hardware characteristics of home computers; rather it will concentrate on the old and unique human characteristics each gamer brings to the game.

Computer gaming is often a substitute for playing games with another person. And it's a *great* substitute. You don't have to serve your home computer milk and cookies and you don't have to listen to it chatter, or make excuses, or gloat when it wins. But it's still a substitute. The human connection in gaming should remain primary. After spending a lot of time in a local computer store, it becomes obvious to me that the games most frequently played (and replayed) are those offering the possibility of player

INTERACTION TYPE	Interaction outside of game play	interaction within game play
quantitative interaction	Pacman, Star Raiders, Eastern Front, etc.	Cartels & Cuttroats, Galaxy, Computer Acquire, etc.
qualitative interaction*	Wizardry	???

*A gamer can derive a quality and "qualitative" experience from any game. It is human nature to try and do so with all games. The point here is that some games actively promote this sort of experience through design; others achieve it only through the imagination of their players.

interaction — and, specifically, *multiple* player interaction. Ultimately the computer and the game are communication devices, so it seems reasonable to assure that the *ideal* computer game will be that game which most effectively increases communication links and decreases communication barriers within the very *human* context of the game-world.

For quick examples of how present game offerings measure up to this *ideal*:

1. Arcade games. In arcade games — let *Pacman* be our example here — the player interaction is minimal and usually revolves around comparing each other's final score.

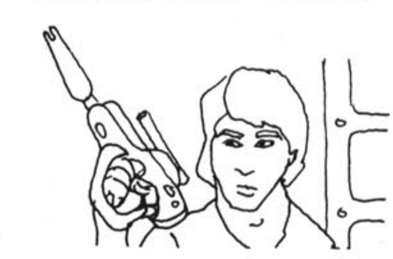
2. Role-playing games. In role-playing games — I must reference *Wizardry*, despite its unavailability to Atari owners — player interaction remains restricted due to the solitaire nature of play. But, outside of game play, it is dramatic experiences which are interchanged among players. The human connection is much stronger in this case, as each player edits and revises the game experience until it exists as much in his/her individual imagination as on the video screen.

3. Multiple player games. Increasingly, multiple player games are making their way into the marketplace. A current favorite in Austin is SSI's *Cartels & Cutthroats*. (*Galaxy* by Avalon Hill is another, similar example.) This type of game allows player interaction *during* game play — a significant achievement. But this interaction is presently only of the arcade variety: direct competition between players and the post-mortem comparison of quantitative game achievements.

4. ???. My fourth example doesn't exist. Not quite — not yet. It's going to take a few more RS-232's, a little more commitment to networking, and a little more vision and dramaturgy on the part of game designers. But there are hints. There's *Starmaster* and *Starweb*. There's Decwars and SpaceWars on *The Source*. And there's that vague *ideal* game that a lot of us are carrying around in our heads.

The true value of any game — *Apple Panic* to *Yar's Revenge* — comes from sharing the experience with other, real-life players, exchanging strategies and tactics, and gaining insights into both games and gamers. Mathematics is an international language, so is chess, so are computer games. The only difference is that computer games have the potential to be a much deeper language, with more intimate connections to the human psyche and the power to tap into the inner human drama. One of the few places we can all come together without social barriers or prejudices or handicaps is in the *ideal* — in our imagination, in our play.

And that's where I want to go.



ATARI READERS

In place of Atari Arcade, CGW features an article by David Myers entitled Atari: The Human Connection. We would encourage our Atari readers to begin a dialog with David on Atari gaming. Here is a message from David:

Hey Atari gamers! Where do you want to go? Since computer games aren't presently providing us with a gamer group consciousness, we're going to have to do it on our own, the old, mechanical way, through physical effort and paper and pencil. Write me with your opinions: things you like about the current Atari game crop and (just as importantly) things you don't like.

Here's a topic to get you started: EASTERN FRONT has some great features: the graphics and the AI being two outstanding ones. But it also has some clunkers. Chris Crawford has already mentioned his regret at including the loud buzzing raspberry that occurs whenever an EF player accidently inputs a diagonal move — a very easy thing to do using the Atari joystick. But this can be alleviated by turning down the volume. More annoying to me is the game's complete shutdown after the final move. Suddenly, after two hours of intense combat, I can no longer find out the names of my units! My men disappear and I'm left with anonymous white rectangles scattered over the Russian countryside — hardly conducive to a post-game victory celebration.

What's the worst element of your favorite game?

I'll be looking foward to hearing from you.

David Myers
5106 N. Lamar #123
Austin, TX 78756

The more response we get from Atari writers/readers, the more Atari coverage we will be able to put in CGW.

Guadalcanal Campaign: Review & Notes

by Richard Charles Karr

BASIC INFORMATION

NAME:	Guadalcanal Campaign
TYPE:	Wargame
SYSTEM:	Apple II 48K Applesoft
FORMAT:	Disk
# PLAYERS	1 or 2
AUTHOR:	Gary Grigsby
PRICE:	$59.95
PUBLISHER:	Strategic Simulations 465 Fairchild Dr., Suite 108 Mountainview, CA 94043

GENERAL DESCRIPTION

SSI's recent release, GUADALCANAL CAMPAIGN, has begun the move from arcade-style gaming to the "monster games" of the hard-core wargamers. While limited to one strategic area and one map, it attempts to present the central aspects of the Solomons Campaign of WW II in an interface of land, sea, and air combat. Ships are listed individually (down to destroyers, seaplane tenders, and destroyer transports). The game is offered with three short scenarios (Coral Sea, Eastern Solomons, and Santa Cruz) of four to 10 turns in length each. In addition, two campaign games are offered: a shortened campaign game (Oct. 1 through Dec. 31, 1942); and the entire campaign (Aug. 7 through Dec. 31). One or two-player games (as is common with SSI titles) are possible. Difficulty levels are numbered one to four, with four being the easiest and one being the hardest. Increased difficulty levels enable Japanese attacks to have greater chances of success. There was a misprint in the early copies of the rulebook. Difficulty level three should be regarded as the historical level of difficulty for the Japanese, instead of (as printed) difficulty level four.

Guadalcanal Campaign may be called "user-friendly", in that information access and checks for the player exist on potentially false moves or errors. The sequence of play is as follows: American task force adjustments; American movement; Japanese task force adjustments; Japanese movement; Japanese air operations; American air operations; combat resolution; reinforcements, replacements, and repair/refits; and the save game phase.

Task force adjustments allow formation, combination, and division of task forces, as well as loading of cargo, training of carrier pilots, checking for reinforcements, an air group display, a map display, a list of sunk ships (and their victory point totals), and a Guadalcanal troop status check. Movement on the map or screen is based on a division of a task force's speed by 2 1/2 knots for every movement point with a minimum movement of 3. Movement north, south, east or west costs two per square, and movement northeast, northwest, southeast, and southwest costs three per square.

Air operations allow for combat air patrol (directly over the launching task force or base), distant combat air patrol (a sliding percentage of available CAP depending on distance), search for enemy ships, search for enemy submarines, the launching of air attacks, the preparation of a counterstrike for carriers, or aircraft transfers. Naval vessels of cruiser size or larger have a built-in search capability (one or two float planes each).

Combat resolution takes 20 seconds (when nothing is happening) to 3-4 minutes (when everything is happening). In general Japanese gunnery is superior (using the historical options) to American gunnery, Japanese torpedo fire is often devastating (while American torpedo fire is abysmal), torpedo planes are fairly inept on both sides, and dive bombers are reasonably effective on both sides, although rather little damage is done individually. A word on increasing the Japanese difficulty levels though: At level four (below the historical level) the Japanese are as inept as the Americans with most everything, missing torpedo shots, attacking destroyers instead of aircraft carriers in a task force, and doing the usual American boobery with naval and air combat. At level three the Japanese are significantly superior in naval combat, with a surface group (in the daytime) of one combat BB, four or five CA's, two or three CL's, and six to nine DD's being the full equal of any American surface group that is realistically available. At level two the Japanese pull off naval blitzkriegs at the wrong moments: transport groups in air range of Rabaul usually have one ship sunk and/or two to three heavily damaged by Bettys. At level one an American player feels very much the helpless victim, as the Japanese player (or computer) attacks with supernatural effectiveness. Bettys from Rabaul WILL blitz anything within range, and this includes strong carrier groups with lots of CAP.

Reinforcements, replacements, and repair/refit is an automatic bookkeeping phase that takes about 20-30 seconds for the computer to calculate. The save game option simply allows players the chance to live useful lives during a campaign (i.e., the player and computer are not tied up for 294 campaign turns). You've got to go to work sometime.

The physical graphics are typical SSI: slick hard box; 16-page rules booklet; two maps; and disk. The rules booklet is well organized and should present no problem for either wargamers or computer game players.

THE GAME AS GAME

After the rules are mastered, play is rapid and fairly closely linked to the historical campaign. To understand and master the system of the rules, several short scenarios should be attempted. A number of problems that this writer encountered during the early stages of learning the game system included the formation (while in port) of the appropriate types of task forces (loading of cargo should take place before transport task forces are formed); separation of cripples from task forces so that the main body of a task force is not drastically slowed; retention of

PLEASE TAKE TIME TO FILL OUT READER INPUT DEVICE p. 48

enough dive-bombers for proper anti-sub work when things get slow down in the slot; the complete reorganization of the fleet so that all of the BB's, CA's, and CL's are together for the bi-monthly trashing of the Japanese (or if you prefer, American) fleet; and keeping CV's mixed with all of the available CLAA's and enough DD's to do the job.

After the above difficulties are mastered (about 3-8 hours of normal play), play moves at the rate of about 7-12 minutes for the one-player games and 10-25 minutes for the two-player games. In all cases the shorter scenarios should be attempted first, to avoid the frustration of living with your mistakes and the boredom of waiting for the carriers to come out and play with the Japanese surface fleet.

THE GAME AS HISTORY

A comparison between GUADALACANAL CAMPAIGN and board wargames covering this same theater and period reveal that SSI is making a serious attempt to come near "state of the art" levels of design and historicity in this simulation. The general pulse of the campaign is felt: marginal American air superiority in the day and a powerful Japanese naval superiority at night. On general reflection, the ships involved are historical (this writer is fuzzy on some of the British/Australian destroyers), although aircraft types are limited in all scenarios except for Coral Sea to U.S. SBD3's and 4's (Dauntless), TBD's (Devastator), TBF2's (Avenger), F4F's (Wildcat), and B-17D's (Flying Fortress); and Japanese Mitsubishi A6M3 (Zeke), Mitsubishi G4M1 (Betty), Aichi D3A1 (Val), and Nakajima B5N (Kate). PBY's (Catalina), B25's (Mitchell), P40's, and Japanese naval floatplanes (Jake) are not included in the game (although they were peripheral to the main action of the campaign, with the exception of the P40). The simplification of the search results (number of planes being used for search and range being determinants) is adequate for imprecise reporting of enemy task forces. A solution to the problem of Japanese tactical surface naval superiority (especially at night) is evident in the accuracy and damage of Japanese gunnery and torpedoes in the game.

Two problems emerge as unsolved in the design by Gary Grisby: naval pilots becoming purely land-based pilots when transferred from a carrier to a land base (naval pilots must be retrained to land on CV's after having been transferred to a land base for even a short time); and the inability of task forces to move other than a stated speed (10 for cruising/patrol speed and 12 for fast speed (for example), so as to conserve fuel. Obviously, programming problems would be difficult at best if the game system had to keep track of which individual aircraft were naval and which were land-based (partially trained), in addition to the information that must be currently accessed. The problem of changing speeds of task forces and fuel consumption includes the problem of vessel bunkers (ship fuel) capacity, and the time it takes for ships of varying displacements to bunker. Gary Grisby leaves the above two problems well enough alone and has concentrated his efforts on the primary aspects of the Solomons Campaign.

In general, Guadalcanal Campaign emerges as an honest attempt (with decent research) to have a historical simulation that is also fun to play.

NOTES ON PLAY

The following notes on play are part of the experience of the writer after 80+ hours of gaming time with this program, in the one player long campaign game (twice). They should not be considered difinitive: rather they offer suggestions of what could be considered possible.

In the one-player long campaign game, the first task facing the American player (the computer can only play the Japanese side) is to re-group the task forces around Guadalcanal into decent combat groups. As there is a limit of seven total task forces possible within the game, the division re-combination, and organization of task forces is occasionally tricky. Don't even bother with a "B" (bombardment) mission task force, merge it into a "C" (combat) task force, and divide the new task force into a CV/CLAA/DD group and a BB/CA/CL/DD group. The only time that CA's and CL's are useful in a "T" (transport) mission task force is when the

Continued on pg. 19

New Releases . . .



Bolo
By Elvyn Software

Based on the Bolo series science fiction classics by Keith Laumer, this is the ultimate tank battle challenge. The gigantic battlefield is 132 times the size of Apple's screen. It's so big you can get lost in it without the help of your locator and detector instruments. The smooth scrolling battlefield pits you against many opponents of varied speed, intelligence and firepower. The battlefield is different every play. Unparalleled combat action. Nine different skill levels. Apple II or II plus, with 48K and DOS 3.3 . . . . **$34.95**



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Bettys from Rabaul are looking for something to hit. Keep the CV group just outside of Betty bombing range (one square SE of Malaita is good), and keep all of the CV fighters on distant CAP (to wear down the Betty attack abilities). After the August 7 night turn (game turn 2), stick around Henderson with transports only during the day turns only (night time is no time to be in this neighborhood). Yes, this slows down the discharge of cargoes from the transports considerably, and allows the possible loss of those slow transports to Bettys (this is what the CV's are for), but I assure you from painful experience that "the Slot" (Henderson) is no place to stick around after the sun goes down. After the transports slowly and painfully discharge their cargoes, get them back to Espiritu Santo (Brisbane will turn them around faster, but the net savings in time will be one game turn, and the net cost will be the perpetual use of one of the task force units that you'll need elsewhere). When possible, damaged or crippled ships should go to Brisbane for repairs (with the possible exception of the slow transports or destroyers, as the time saved will be minimal when compared with the use of the task force unit). Repairs in Brisbane are made more quickly.

Carriers should be sent to Brisbane when they start running thin on endurance points whenever possible (you'll get them back a week faster). As the carriers are heading back to Brisbane (frequently with less than four endurance points left), aircraft should be transferred to Henderson or Espiritu Santo or other carriers from damaged CV's. The damaged CV's will take a long time to repair (even in Brisbane), and the aircraft still on them when they dock will be out of the game until the CV in question is fully repaired. It often happens after September that a refitted or repaired carrier in Brisbane will have no aircraft (or few aircraft) left on it. In that case, have the unused carrier train Brisbane pilots to be naval aviators, so that the otherwise unusable Brisbane aircraft can get into the game. Another option when there aren't many Brisbane aircraft around (or you're feeling frisky) is to have banged-up or worn out carriers coming into Brisbane transfer their aircraft to the empty unused carrier in that port, moving that CV one or two turns out to sea to intercept their transfer.

Carriers start with an endurance of 60 turns; 2 turns per day an endurance of less than 50 when the CV docks means that the carrier(s) in question will remain out of the game for a while. It is quite possible to take a fresh group out of Brisbane to Espiritu Santo by moving along the shortest and straightest route, where they will immediately refit and be ready the next turn. It is in the nature of this game system to have cyclical periods of activity: during one common cycle the Japanese will be in the Slot dropping off troops and supplies, and on the other alternate nights they will have an average of one BB, two CA's, and five DD's pounding on Henderson. After the first week of the long campaign game this is as routine as it is inevitable. You (as the American player) can't stop them, all you can do is sink them now and again. Do not allow yourself to be tempted into a position of nickel-diming the U.S. fleet; there just isn't enough of it to spare. U.S. CA's will be lost if you're not careful, and even if you are careful, they still will be lost. If the cyclical period arises when two or more U.S. carriers are active, you should have the surface element (all available BB's, CA's, CL's, and DD's) along for the ride from the turn they leave Espiritu Santo. The carriers should wait off of Henderson (again, one square SE of Malaita is great) with their fighters on distant CAP, pounding on Bettys until they are reduced to fewer than ten returning back to Rabaul, and then the U.S. should seek battle. Surface actions should be fought in the Shortlands (two squares S of Choiseul is the best place) in the day. With the presence of one or more BB's, six or more CA's, one or two CL's, and all of the DD's you can spare, it should be uneven (and vindictively fun). Hopefully during these periods of U.S. naval activity, the "Tokyo Express" of night raids on Henderson can cease for two nights, long enough to hopefully resupply your starving marines. Four days of cheerfully romping from New Georgia to Rabaul with a powerful U.S. carrier group supported by a powerful surface group pounding on cripples will absolutely make your game

Continued on pg. 46

GALACTIC GLADIATORS

Individual Combat in the 28th Century

David Long

BASIC INFORMATION

NAME:	Galactic Gladiators
TYPE:	Strategy
SYSTEM:	Apple and Atari
FORMAT:	Disk
# PLAYERS:	1 or 2
AUTHOR:	Tom Reamy
PRICE:	$39.95
Publisher:	Strategic Simulations 465 Fairchild Dr., Suite 108 Mountain View, CA 94043

GALACTIC GLADIATORS (GG) is SSI's new game of alien combat in the 28th Century. You and your opponent, human or computer, choose teams from the races of many far flung stars to then battle — usually to the death! — with the deadly weaponry of the distant future. Each player chooses his moves, then the computer carries out all orders. Phasors fire green and red bolts, of energy, Gemstones flash across the screen and explode, Gladiators move, all in excellent hi-res graphics.

THE GLADIATORS

The seven "regular species" are divided into the Lightweights, Middleweights, and Heavyweights. The Lightweights, the *Koraci* and the *Cygnians*, are fast and agile, (speed determines who moves first; agility who attacks first), but not too strong, and are relatively quick to "gas out" (when strength reaches 0 the gladiator is dead; when endurance reaches 0, the gladiator must rest).

At the other end of the spectrum are the Heavyweights, the *Froglodytes*, *Dulbians*, and the *Zorcons*. These three species are slower and less agile, but they make up for this "clumsiness" with greater strength and endurance.

We *Humans*, with our genetic offshoots, the *Wodianties* comprise the third group, the Middleweights. As might be expected, speed, agility, strength and endurance are all in the mid-range for these two species. Each species has been designed to compete equally with the others, and there are an infinite variety of teams which you can create, with from one to ten Gladiators of any species per team.

When you begin to get the hang of the game and learn which species are better at which types of fighting, you can begin to incorporate the eight "special species" into your battles.

These include the *Gorsai*, a race of super warriors originally bred from human stock; *Robots; Banshees; Mutants* (unarmed, but with a radioactive "death touch"); *Slime Devils; Night Stalkers*, and *Oranguphins*. The last of the special species are the *Monsters*, which you create in any form and with whichever characteristics you desire.

The rules tell you that Banshees can only travel in pairs, Monsters travel alone, and that neither of these two species (the toughest two species in the galaxy) can join other teams. Don't beleive it! Banshees can travel singly. And both species can be combined with other species. By using the 'merge' option when viewing an existing team you can combine both Banshees and Monsters with any other team. When you develop strong and experienced teams and need 'quality' opponents, try "cloning" your toughest team (change the names) and merging them with a couple of Banshees and a Monster or two . . . Good Luck and Good Shooting!!

THE WEAPONS

Each combatant can choose from an assortment of twelve different weapons and two types of armor, as long as he or she has the strength to carry that particular item. Weapons fall into three basic categories, Hand-to-Hand combat weapons (such as Laser Swords, Stun Wands, and Disrupters), Ranged weapons, (Hand Phasors and Phasor Rifles), and Guided weapons (Gapers and Gemstones). Both Ranged weapons and Guided weapons may attack from a distance, with effectiveness dependent on the skill level of both attacker and defender as well as the range. Both Gapers and Gemstones are one time shots - once used they are gone - and all Phasor weapons must be reloaded after firing. All Hand-to-Hand combat weapons may be used repeatedly without reloading, but are effective only when adjacent to the defender.

In the early stages of your training, you will find that your marksmanship is generally pretty lousy. All Phasor weapons have an unlimited range, but, if, as a beginning gladiator you can consistantly hit your target from a range of more than four or five, then "you're a better man than I am, Gunga Dinh." Don't worry though, because as your experience and weapon skills increase, you marksmanship will improve. My "Dead-eye" Drak, Experience 345/Phasor Skill 20. rarely misses.

THE BATTLEGROUNDS

Unlike many wargames where there is a single unchanging battlefield, GG contains many battlefields. But when these become "old hat" you can opt for a random selection of terrain on either a small, medium or large battlefield. You can further specify whether you want it Open, Semi-Open, Normal, Semi-Crowded, or Crowded. Now that is variety!

And if that's still not enough, you can create your own arena, placing terrain features on any size battlefield, indoor or outdoor, and then you can save your creations on disc for future use. The result is that you need never use the same battlefield twice!

THE SCENARIOS

Eleven different scenarios are presented for your combative enjoyment, starting with the introductory "Brawl At Cosmic Mike's Place," which will have you playing the game within five minutes after opening the box. There is also the "Create a Game" option, which allows you to do just about anything you want. Games consist of combat between two teams of from one to ten gladiators each, and may be either a fight to the death, or for control of a particular square, whichever you choose.

For those with a grain or two of imagination you can string together

Continued on pg. 45

Announcing The Second Annual Computer Gaming World Robotwar Tournament

Yes, its the event you've been waiting for! COMPUTER GAMING WORLD proudly announces the SECOND ANNUAL ROBOTWAR TOURNAMENT. Enter your robot(s) against other robots from around the nation.

Our first Robotwar tournament, announced in our charter issue (Nov.-Dec. 1981) invited readers to pit their best robot against submissions from across the U.S. The tournament was won by NORDEN+, designed by Richard Fowell. NORDEN+'s source code was given in our March — April 1982 issue (2.2).

There will be a trophy and ROBOTWAR T-shirt for the winner. Other finalists will also receive a ROBOTWAR T-shirt.

Use the following guidelines in making submissions to the tournament:

1) Send your robot program (source and object codes) on a diskette to COMPUTER GAMING WORLD, 1919 E. Sycamore #203, Anaheim, CA, 92805. Mark your package "Attention Robotwar Tournament".

2) Include a brief description of the robot. What is it designed to do?

3) More than one entry per designer will be accepted, however we can only guarantee one opening per designer. If you submit more than one robot, designate a primary contestant. Your other robots will be entered as space allows. If secondary entries are determined by the staff of CGW to be merely a variant of the primary entry, the secondary entry will not be allowed.

4) Include your name, address and phone number with your submission(s). If you wish your diskette returned also include return postage.

5) CGW reserves the right to print the source code of the winning robot.

6) CGW reserves the right to reproduce entries in disk form (with credits) for possible sale through the magazine. This right will be waived for a submission if so requested by the designer in writing.

6) Include T-shirt size (S,M,L,XL) in case you are a winner.

6) Entries must be received by December 10, 1982.

7) Winners will be announced in our March — April 1983 issue. A round robin style tournament will be used to determine the winner. Each entry will fight in at least 20 battles. A effort will be made to separate multiple entires by a single designer in competition. NORDEN+ is eligible to be entered again.

****

ERROR CORRECTION: The listing of NORDEN+ in CGW 2.2 has a minor error. The first two statements of the actual program (1 TO SPEEDY; 256 TO U TO V) should each be indented one space.

THE ROAD TO GETTYSBURG

by Bob Proctor

BASIC INFORMATION

NAME:	The Road To Gettysburg
TYPE	Strategy
SYSTEM:	Apple II or Apple II+
FORMAT:	Diskette (DOS 3.3)
# PLAYERS:	or 2
AUTHOR:	Paul Murray
PRICE:	$59.95
PUBLISHER:	Strategic Simulations Inc. 465 Fairchild Dr., Suite 108 Mountain View, CA 94043

THE ROAD TO GETTYSBURG [TRTG] is the second Civil War game from SSI. It uses the same basic system as SSI's **NAPOLEON'S CAMPAIGNS** 1813 & 1815 [**NC**] which was reviewed in CGW 2.1, the Janaury '82 issue, and the games are very similar. The system's main purpose is to recreate the "fog of war" as perceived by the commander of a large army of the 19th century. You, as commander, receive information from your sub-commanders and send orders back to them. The fog comes from three sources: their reports to you are not always accurate; your orders to them are not always obeyed; and, finally, both reports and orders must be delivered by courier which may take up to three or four turns in each direction.

TRTG may be played by one or two people. The solitaire version puts you in the role of Robert E. Lee, commander of the confederate forces. Tired of battering at the defenses south of Washington D.C., you've taken your army west and north into Pennsylvania. It is the morning of June 28, 1863 and your Headquarters is in the small town of Chambersburg; the Capitol lies to the southeast. The area is practically undefended, but Union cavalry units are being thrown into your path and a large army under General Meade is crossing the Potomac to the south, at Harper's Ferry. How would you pull this one out of the fire?

From Meade's viewpoint, the situation is equally difficult. You must do something quickly to keep the enemy from getting between you and Washington, yet you cannot afford to throw one division at a time against the whole Confederate army. The program plays a very mean game as Meade, even at the easiest (of four) difficulty levels. You'll have reason to be proud, indeed, if you can stick with it long enough to win.

Sticking with it, though, may prove to be a problem. To the three sources of fog listed above, *SSI* has added a fourth. They have done almost nothing to help someone just getting started to figure out what's happening. The first game (if you haven't played **NC**) is a bewildering experience. Why doesn't unit A move when ordered? Why haven't I heard from unit **B?** Why am I suffering twice as many casualties as the enemy when I have them outnumbered? Just trying to find possible answers to these questions is tough.

Part of this problem lies in the level of abstraction. Consider the question of urgency, for example. It is easy to see that orders should be accompanied by a statement of urgency such as *immediately* or *any time this week*. In the game, this is handled by a *Set Urgency* command which allows you to select an urgency level from 1 to 9. High levels are needed to get division commanders to move prompty, but low levels are necessary in combat to keep them from foolishly throwing themselves at the enemy. But you don't give each task an urgency, you set one level for all tasks.

This is not too bad when a unit only has one task, but becomes very confusing when there is more than one. And tasks can change almost without your knowing it. A unit on the move may run into unsuspected enemy units if the commander is under orders to attack on contact he will then go into battle with the high urgency level that had been given for prompt movement. What is needed are Helpful Hints For Beginners which would explain these intricacies in greater detail. Joel Billings' article, *Napoleon's Campaigns 1813 & 1815: Some Notes*, in CGW 2.2 (March/April) is immensely valuable to a player of either game as it largely satisfies these needs. Something like it should be put on the blank pages at the back of the rulebook.

For those who elevate themselves to an average amount of uncertainty, the game works well and the program is professionally done. Like **NC**, there are two 11" by 12" maps and two sets of counters provided for those who prefer them to viewing the map on the screen. There are some small differences from the **NC** game — most important of which is the absence of any Lines of Supply. This is appropriate, as Lee had cut loose from his supply lines and was living off the land as he went.

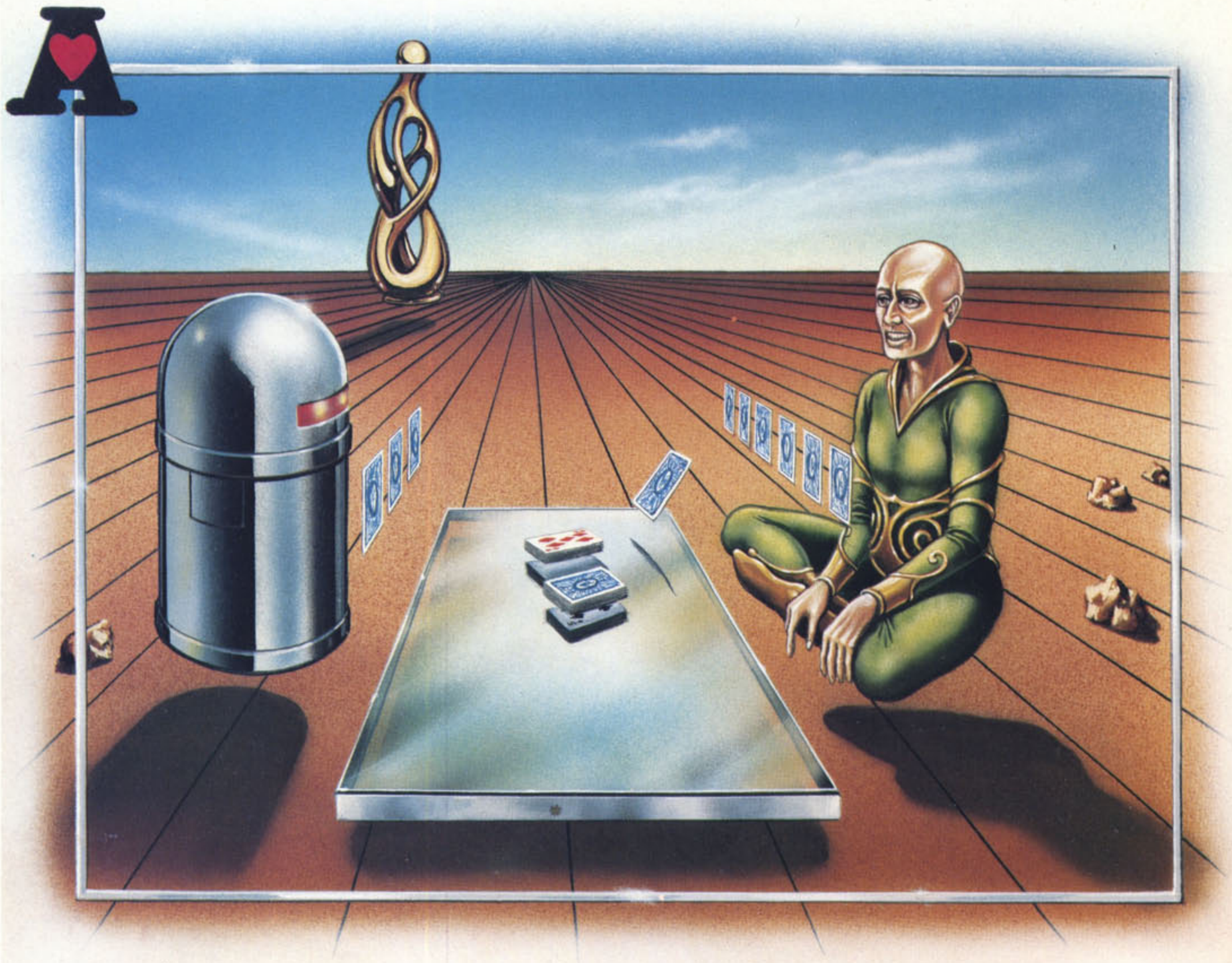
The Confederates, in fact, gain victory points for foraging; up to five points in each town, three in each road hex, and one in any other hex. This makes a raiding strategy possible — staying away from a superior force while collecting as many foraging points as you can and only fighting defensively if cornered. Other possible choices for the Confederate are to move toward Washington with all possible speed (exiting the map in that direction is also worth points), or to try to ambush a small Union force and destroy it. As with any good game, for every strategy there is an effective counter-strategy and, of course, for every counter-strategy an effective counter-counter-strategy.

Another difference between the two games is that, in TRTG, two of the best Confederate divisions start a considerable distance from HQ. Furthest away is Stuart's cavalry, the only cavalry unit the South has apart from the tiny force attached to HQ. The first orders will take three turns to reach them and their reports of enemy troop positions will take equally long to get to you. This lack of calvary (on both sides) makes it harder to find out what the enemy is up to.

There is, further, a provision for stragglers. Both sides lose strength during forced marching and night movement, the Union more so than

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The chase is on, and you're *it!*
Crazy MAZEY
There are secret hordes of cash hidden in the city and you intend to "liberate" it all. But, someone tipped off the killer goons and they're hot on your tail. Floor that pedal . . . burn up the road!
Oh, oh . . . that's not enough to shake them. You need exceptional skill and strategy to lose them in the intricate and crazy maze of streets . . . to force them to crash, to trap them in dead ends.
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Makes all other card games seem boring . . .

COMPUTER GIN RUMMY

GET ON THE BANDWAGON

Computer Games by Cable



In this age of electronic entertainment, two entertainment forms are becoming increasingly popular—cable television and computer games. The cable television field is best known for its movie, sports, and news channels. The computer gaming field is best known for handheld, coin-op, home video, and personal computer games. The inevitable marriage of these two entities is now a reality. The GAMES NETWORK ™ , based in Los Angeles, is putting together what looks to be a winner — a cable computer gaming network. Cable systems will soon have available a natural companion to all those movies, sport and news programs; and the computer gaming field will soon be finding a new media in which to grow.

BACKGROUND

THE GAMES NETWORK (TGN) is the brainchild of Larry Dunlap and Thom Keith. Dunlap combines a strong background in the entertainment industry with a longstanding interest in the gaming hobby. As founder of the nation's first cable television station, CATV in Laguna Hills, California, Keith has been called the "Father of Cable Television Programming". Dunlap and Keith have formed International Cablecasting Companies, Inc. and are working not only on the implementation of THE GAMES NETWORK, but are also working towards the creation of THE FANTASY CHANNEL and THE I.Q. CHANNEL.

The GAMES NETWORK, however, is not the first cable gaming network to come into being. In 1980 a computer gaming network called PLAYCABLE™ was introduced. The system uses the Mattel Intellivision game system. Jim Summers, Director of Program Acquisitions at TGN, does not feel that PLAYCABLE is a serious competitor for

TGN's audience. Summers says that TGN has definite advantages over the PLAYCABLE system. The initial outlay by the end user of PLAYCABLE is more than $200 (the price of an Intellivision set) whereas the initial outlay for TGN will be a $50 installation fee. The hardware installed by TGN will be a 6502 processor unit supporting 64K of memory. Obviously, the TGN hardware can handle more sophisticated programs than the Intellivision. PLAYCABLE allows you to download any of the Intellivision games (which number a little over 30) for play on your television. TGN will draw from the wider field of personal computer games and coin-op games to provide the local user with 20 games each month. Each month five new games will be available as five others rotate off the list. Over the period of a year the subscriber will be able to play 80 different computer games. A preliminary advertisement for TGN shows people playing, among other games, SWASHBUCKLER by Datamost and CONGO by Sentient Software. Software houses that have, to date, granted licensing agreements for their games to TGN are: Avante-Garde, Adventure International, Broderbund, Cavalier, CPU Inc., Datamost, Edu-Tek, Hayden, Mirco-Lab, Microsoft, Sierra On-Line, Phoenix Software, Piccadilly, Sentient, and Innovative.

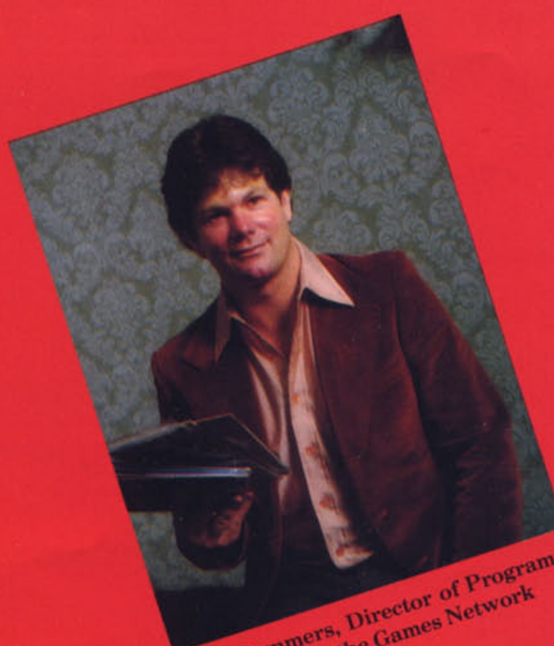
The most exciting aspect of this entire system is that THE GAMES NETWORK is two-way interactive. TGN has the capability to allow two or more computer gamers in different locations to play against one another via the network. This, however, is tempered by the fact that many cable stations do not yet support two-way interactive channels. In this sense, TGN is ahead of the technology which presently exists in most cable systems. It is hoped that interest in TGN will help cause local cable systems to make the inevitable switch to a two-way interactive system at a much earlier date than might otherwise be so.

WANTED: GAMES

THE GAMES NETWORK is currently in the playtest stage in homes of a Southern California community. The playtest is being conducted by TGN in association with GROUP W CABLE. TGN is shooting for an early 1983 date for going "on-line" to cable subscribers. In the mean time TGN is accepting game submissions. With the current cable market at 25 million subscribers, TGN could conceivably pay as much as $80,000 in royalties per month per game that they offer. This is based on TGN reaching 10% of the cable marketplace and the game in question being a monthly selection by all the local cable systems which make up that 10%. While it is not likely that any game will actually draw that kind of income, and getting 10% of the cable markets to sign up for TGN is not a certainty, it can be seen that the potential income through licensing the cable rights to your computer game are large; much larger than what game designers are making now.

If you have a game on the market, you may want to ask your software house to look into licensing the game to TGN. "Don't give the cable rights to your game away . . . There is a lot of money to be made in the cable gaming industry by licensing those rights" says Summers. TGN is accepting game submissions. Although you may find it easier to deal through a software house, TGN encourages submissions from ALL 6502 game designers.

Summers emphasizes "playability" as the most important element in games that will be selected for TGN. Although TGN is two-way interactive, many cable systems are not. Thus games that require only one "down load" with little or no disk access during play will have a better chance of being licensed by TGN than games that utilize a lot of disk access. As cable companies become more uniformly two-way interactive, TGN will become more interested in two-way interactive games and games that require a larger degree of disk access. Game submissions should be made to Jim Summers, The Games Network, Box 36E19, Los Angeles, CA 90036; 213-932-1950.



Jim Summers, Director of Program Acquisitions, the Games Network

Can you survive the perils of the RED planet?

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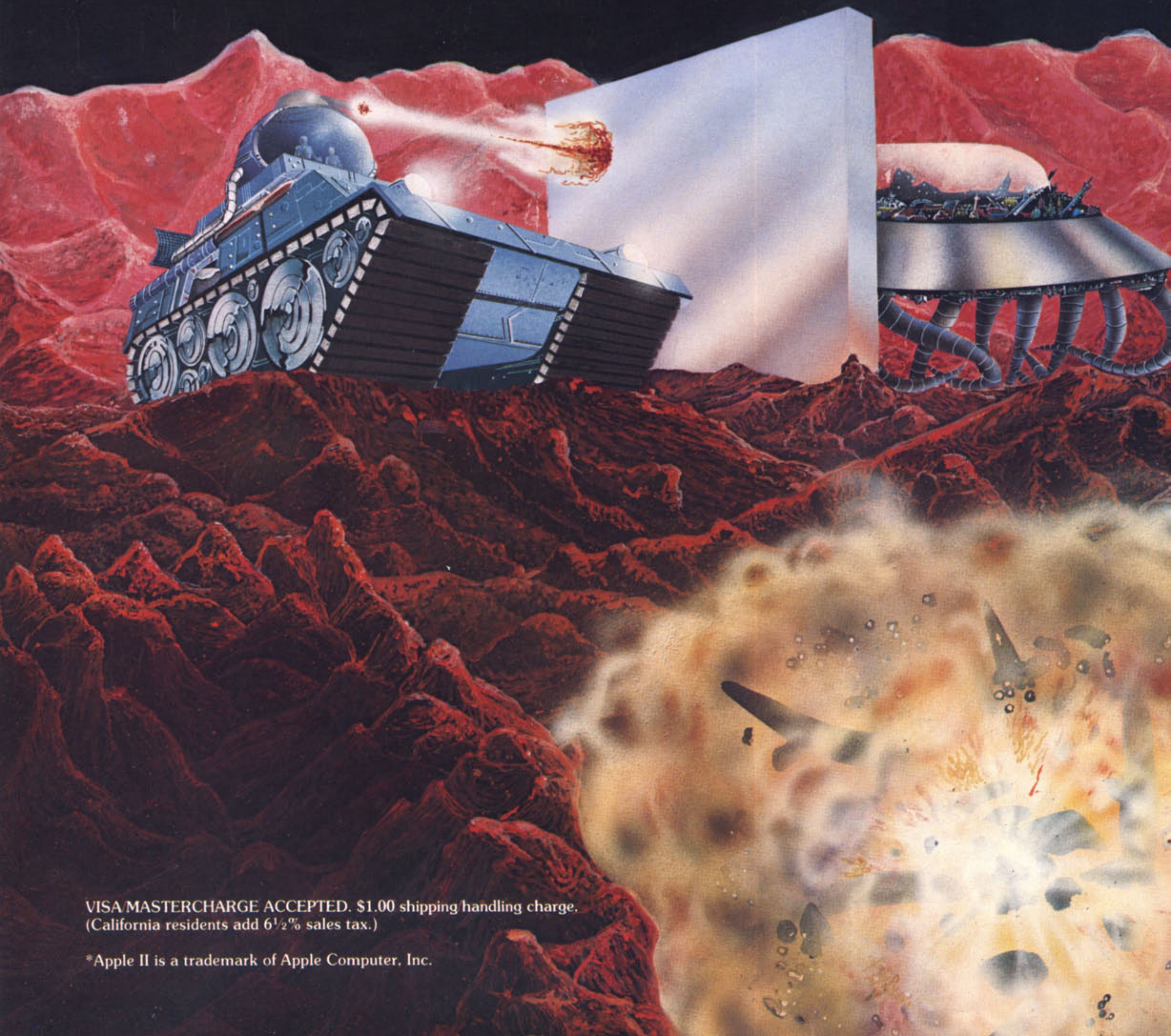
For the deadly Mars Cars sense there's an alien on their planet, *you* – and they track you relentlessly over the dunes, around the barriers, across the treacherous land. Eluding them is imperative, because they can "blink" you at a touch.

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A New Column

ROUTE 80 — THE ROAD TO ADVENTURE

by Dick McGrath

In the beginning there was Parker Brothers. And they created "Monopoly". And eveyone played and saw that it was good. And they said, "Never will there be a game better than Monopoly". And then came Avalon Hill and they created "Tactics II". And everyone played and saw that it was even better than Monopoly. And they said, "Never will there be a game better than Tactics II". And then came "Blitzkreig: And everyone played and they said. . . well, you know what they said.

And so it went. From the beginning of time, man has simulated his environment, practiced his skills, trained his young, and entertained himself through the challenge of games. Throughout history, every generation has created more realistic, more sophisticated, and more complex games to satisfy the competitive spirit. . .each generation of game designers building on the experiences of the past. The earliest games were probably simple reenactments of the chase, the hunt, combat, and other facets of daily life. Gradually, they were refined into microcosms of reality, utilizing twigs, stones and bones, with playing areas outlined in the dirt. By the time the Parker Brothers finally did make their appearance, we had accumulated thousands of years of gaming experience, playing such ancient and sophisticated pastimes as chess, checkers and backgammon.

Today, we are just getting our first clear look over the brink of a new horizon. . .with a view of gaming sophistication that was not even imagined just ten years ago. Real-life simulations, fantasy, role playing, electronic arcades, and above all, the world of *computer gaming*.

As gaming enthusiasts, we are the Walter Mittys of the world. We live out our fantasies over the game board and the video display. They provide our means of escape to another dimension. . .a world of illusion in which we can satisfy our thirst for challenge and excitement!

I want to join you on this road to adventure, through the columns of this new COMPUTER GAMING WORLD department, devoted exclusively to that most endangered of species—the TRS-80 computer gamer.

For those of you who are still with me, that rustling you just heard was the Apple and Atari owners turning the page. If you are still reading, I'm going to assume that you're a TRS-80 owner and, therefore, you have some of the same interests that I have. Mainly, *what games are available for my machine, where can I get them, how do I play them* and *who has a solution for my most recent problem,* whatever it may be.

I don't know about you, but my ego needs a boost. I'm tired of sneaking into Apple dealer showrooms, gazing down the rows of Apple software and whispering to the salesman, "Do you carry anything for TRS-80"? A primary goal of this column will be to provide a rallying point and information exchange for TRS-80 owners. But I need your help! I don't even know how many of you are out there. So how about letting me know! Just drop me a note at 2008 Calle Miranda, Fullerton, CA 92633, or call (714) 525-4969. Tell me what computer games you play: Fantasy? . . . Arcade? . . . Real life simulations? . . . D & D type adventures?. . . What model TRS-80 do you have? How much memory? Disk or cassette? What are your computer reading interests?. . . Game reviews?. . . Playing aids?. . . Technical articles on software?. . . on hardware?. . . of new products? . . . Feature articles? . . . Interviews with game authors? . . . Strategy and playing hints? . . . Previews Exchange of practical ideas with other TRS-80 gamers? Whatever you want, we'll try to provide it.

In the meantime, here are some short items to get the column rolling.

MODEL I INTERFACE DISCONTINUED

The latest word from Radio Shack headquarters in Fort Worth is that production for the Model I Interface has been discontinued. Those of you who are using a 16K Model I with a cassette drive and still intend to upgrade sometime in the future, the future is here! There are still some interfaces in stock, but if you plan to add disk drives or memory to your economy grade model, you'd better do it now, while the interfaces are still available!

PROGRAMS BY SUBSCRIPTION

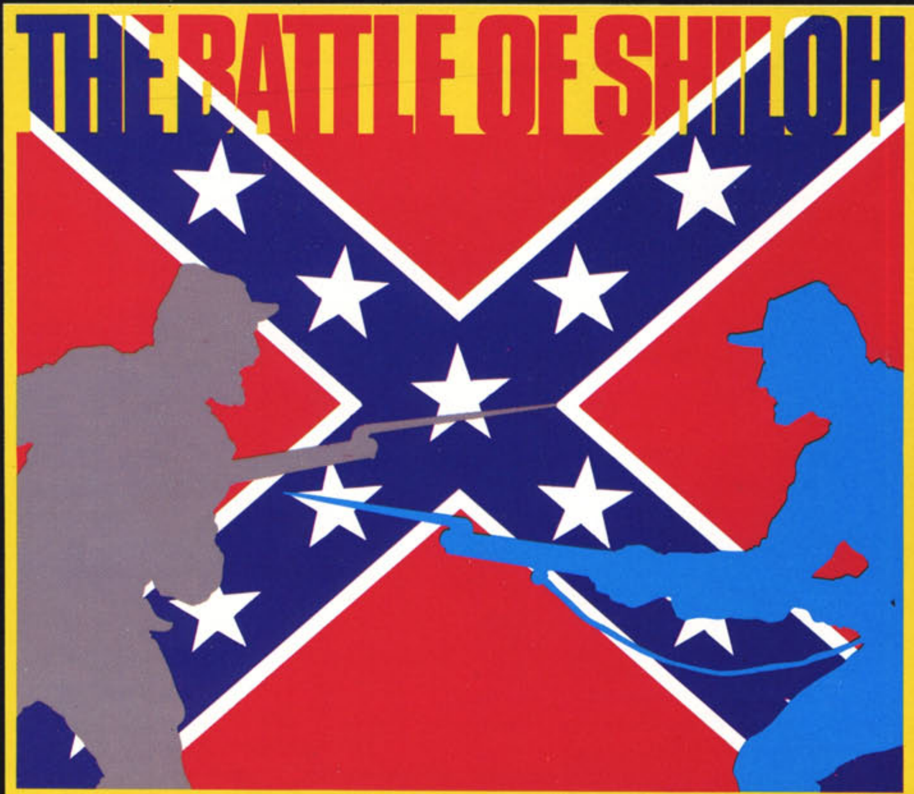
If you live in an area where computer software retailers are a rarity, you might consider obtaining your software by mail on a regular basis from one of several subscription services. It's like looking forward to a surprise Christmas present every month! One of the best is CLOAD, published by *Cload Magazine*, P.O. Box 1448, Santa Barbara, CA 93102. Their monthly cassette tape costs $50.00 a year or $30.00 for 6 months, and is worth every penny! You'll generally receive eight programs each month, of which, about half will be games. The others will include utilities, business and finance programs, tutorials, instructional programs, and whatever else the editor, Dave Lagerquist, can come up with. Each month, Dave includes a brief newsletter with program documentation, bits of down-home philosophy, and helpful comments on TRS-80 computing in general. His style is friendly and personal. You get to know everyone in the company by first names, including the dog, Jed, and Robin and Mike's new baby, Morgan. No, I never met any of them in person, but I plan to visit some day soon and include an interview with Dave in a later column. Next month, I'll put you on to another subscription service.

I also hope to include some side by side comparisons of similar programs published by rent companies, hints on converting programs from tape to disk, and continuous review of TRS-80 games. I have over 600 TRS-800 programs, accumulated over a 4 year period, so there's sufficient background material to get started, but I need your ideas and assistance to make this column a success.

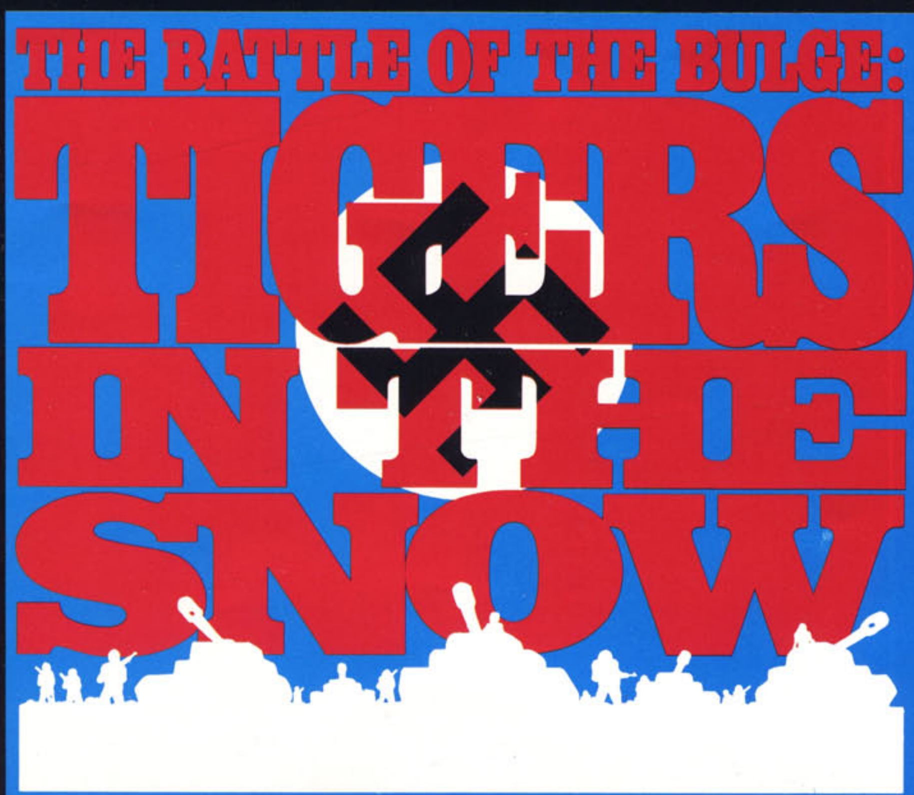
WAIT JUST A MINUTE! Don't turn the page till you have scribbled out a letter or postcard with a question, a complaint, or just a suggestion of what you'd like to see in future columns.

Remember, this is your column! TRS-80 GAMERS, UNITE!

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Cytron Masters: The View From a Play Tester

MARK BOTNER

BASIC INFORMATION

Name:	Cytron Masters
Type:	Strategy
System:	Apple II (48K, paddles required)
Format:	Disk
# Players:	I or 2
Author:	Dan Bunten
Price:	$39.95
Publisher:	Strategic Simulations Inc. 456 Fairchild Dr. Suite 108 Mountain View, CA 94043

CYTRON MASTERS is one of a new breed of games combining the action and graphics of arcade-type games with the authenticity of simulations. After the last few months of testing it, I find myself repeatedly drawn to playing it. This is quite a departure from arcade games which are intially fun to play, but the "fun" wears off quickly. Unlike so many other strategy games, it is possible to simply sit down and start playing Cytron Masters without reading lengthy instructions. However, most people will want to read the action packed, automatic introduction included on the disk with the game. Instructions of this type are sure to become a standard format for game information.

Because I watched Cytron Masters grow from an idea to a small program, then to a complete game, I had a experience in it's development. As a game tester for the author, Dan Bunten, I was able to help him not only with bugs in the program, but with ideas and suggestions which he readily accepted. Although a war game, like many other SSI games, CYTRON MASTERS is still an original idea. One feature that makes CYTRON MASTERS different from other war games consisting of player #1's turn, player #2's turn etc., is the continuous nique action and animation of the Cytrons. This enables two people to play simultaneously. One might think that since this is a war game, Cytrons are completely in your control. Not so—the players or managers, as they should be called, do just that, manage the Cytrons. These Cytrons carry out not only your instructions but built-in ones as well. For example: Shooters scan & shoot at Cytrons within their pre-determined range. Cytrons carry out their own instructions very much like men in a real war.

A Cytron is a CYbernetic elecTRONic device, or in plain English a robot. Armies of Cytrons are used in an arena for combat. The Intergalactic Commisssion has ruled that in global disputes the parties involved will make settlement by participating in this futuristic match. These matches eliminate unnecessary human warfare in the future. Spectators gather to watch the event and cheer for the victor! There are six types of Cytrons:

1) MINES are heavily armored bombs which explode upon contact with enemy Cytrons. (Costs 1 units of power)
2) BUNKERS are defensive shields for all other Cytrons. These are able to withstand 10 "hits" from Shooters or 2 contacts with mines. (Costs 2 units of power)
3) SHOOTERS are attack units armed with laser cannons. (Costs 4 units of power)
4) COMMANDERS are used to relay messages to all other Cytrons within their range. (Costs 4 units of power)
5) MISSILES have powerful offensive/defensive uses. (Costs 8 units of power) Need practice on Missile/Anti missile control? Then just run the practice session included on diskette.
6) ANTI-MISSILES are the only defense against missiles. (These are FREE)

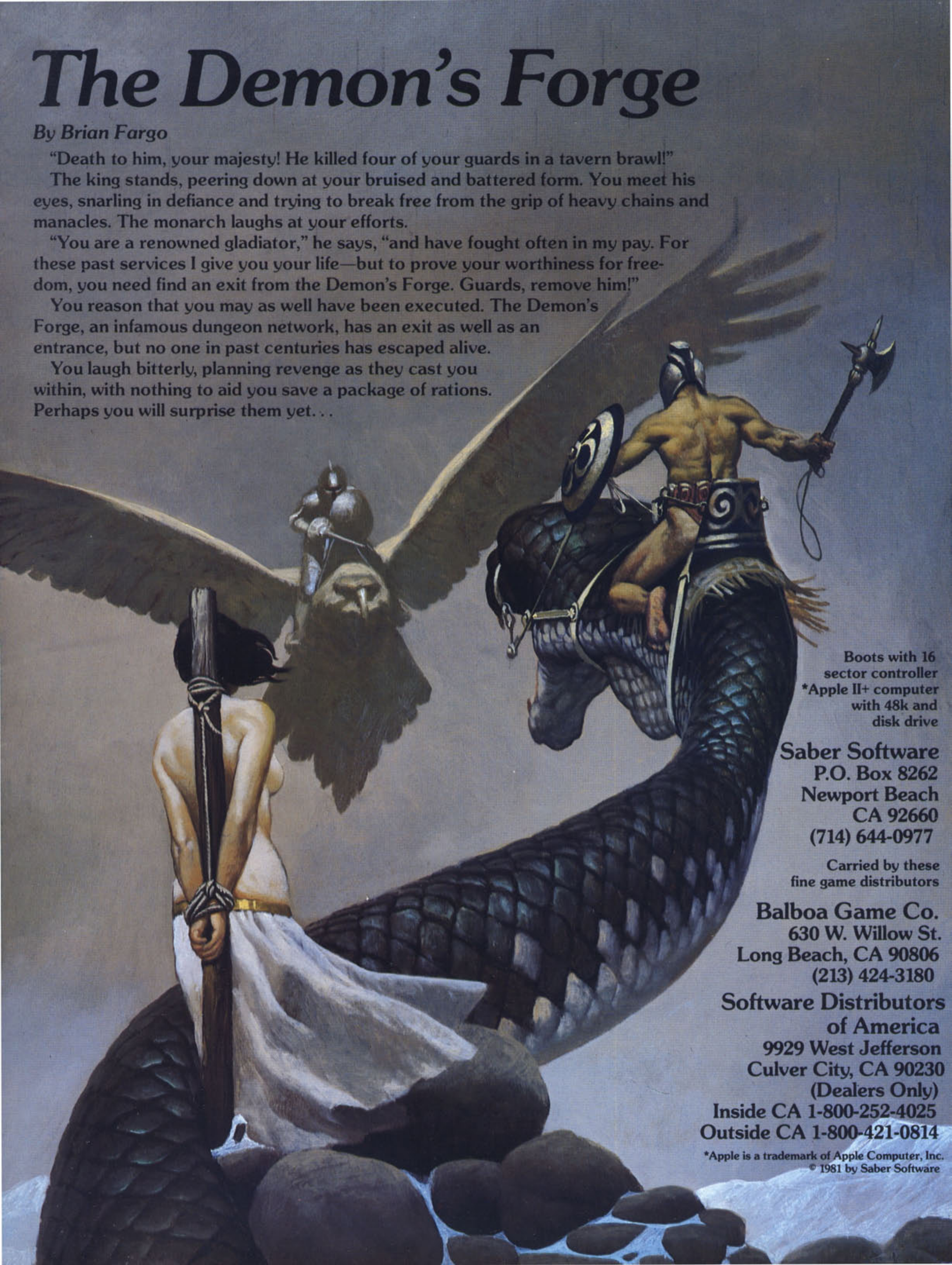
The battlefield consists of an arena 18 units (Cytron size) high by 38 units long. On the left and right edges of the field are the Command Centers. Closer to the center of the screen are the randomly placed Power Centers, which can be positioned by the managers prior to the beginning of the game. New Cytrons emerge from the preLOCATEd Beam Point.

The option to either play a normal game or customize one's own version exists in the two-player game. Many of the strategic variables (costs of for example) can be altered to drastically change the play. Altering the variables Cytrons allows for individual tastes (this can be interesting to tamper with). The default values, however, are well thought out.

You have four options during play which allow you to manage the game.

1) MAKE allows the managers to produce any of the five Cytrons provided there is enough available energy. You have three possible locations to place the new unit: At the present Beam Point, above it or below it. No more than a total of 50 Cytrons per player may be present on the battlefield at any one time. However, you may still MAKE a missile at any time which will emerge from the Command Center.

Continued on pg. 45



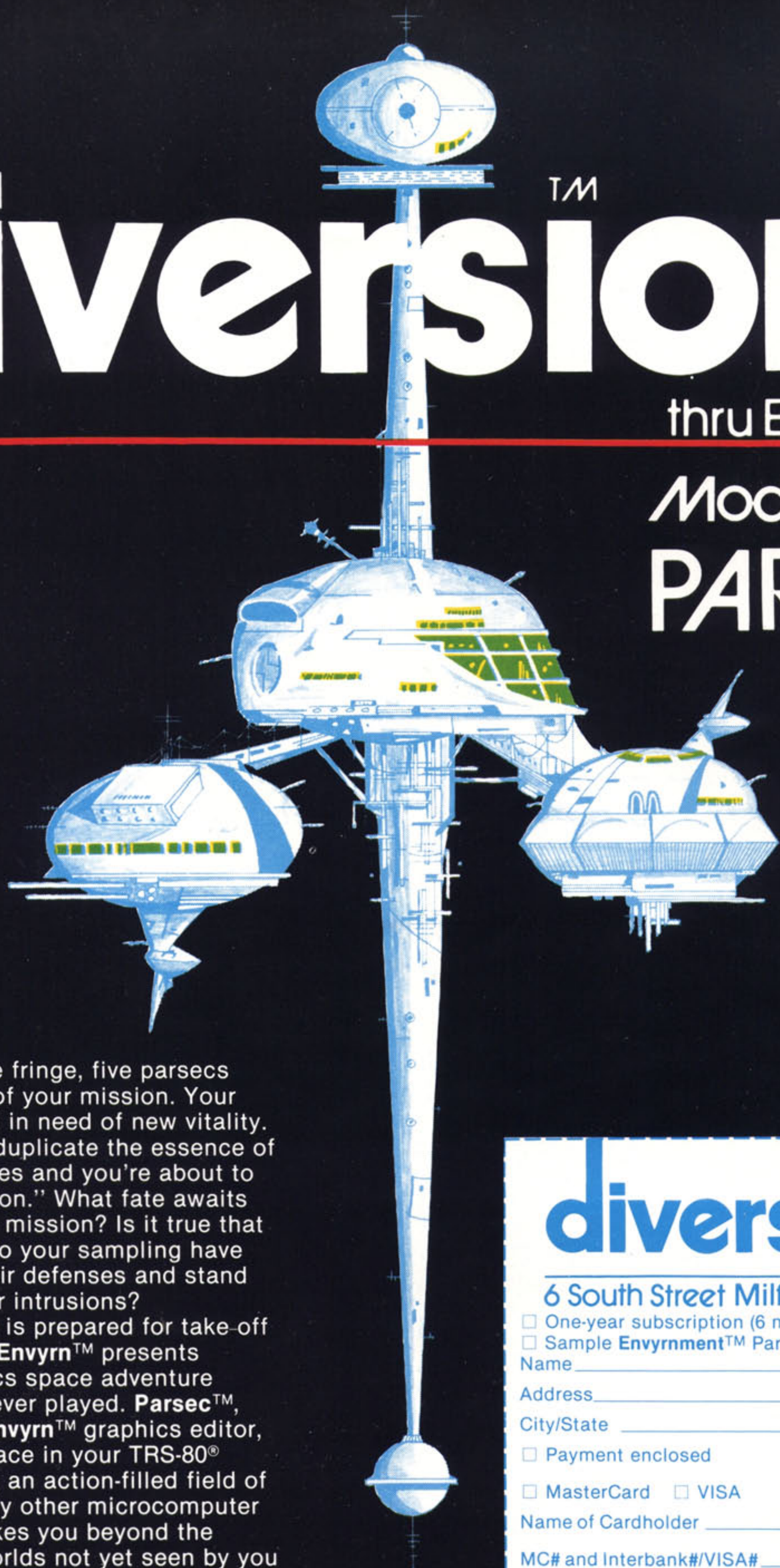
The Demon's Forge
By Brian Fargo
"Death to him, your majesty! He killed four of your guards in a tavern brawl!"
The king stands, peering down at your bruised and battered form. You meet his eyes, snarling in defiance and trying to break free from the grip of heavy chains and manacles. The monarch laughs at your efforts.
"You are a renowned gladiator," he says, "and have fought often in my pay. For these past services I give you your life—but to prove your worthiness for freedom, you need find an exit from the Demon's Forge. Guards, remove him!"
You reason that you may as well have been executed. The Demon's Forge, an infamous dungeon network, has an exit as well as an entrance, but no one in past centuries has escaped alive.
You laugh bitterly, planning revenge as they cast you within, with nothing to aid you save a package of rations. Perhaps you will surprise them yet. . .
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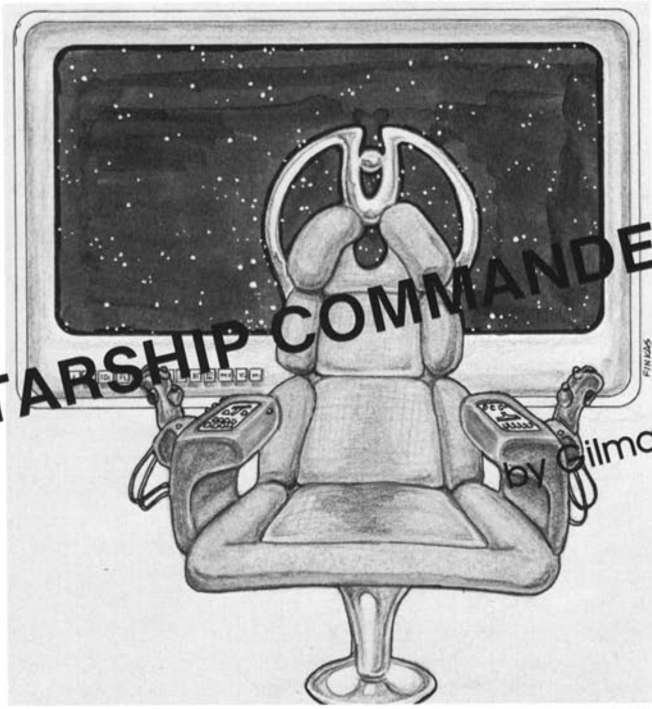
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STARSHIP COMMANDER: NOTES AND TIPS

by Gilman Louie

DESIGNER'S NOTES

After playing some **STAR TREK** programs, I found myself wanting more. I was tired of playing against enemy ships which, in their moves, displayed little or no strategy. I was tired of destroying ships with only a few shots. The elements of total control and realism were missing in these games. Commanding a Starship should be like commanding a naval vessel. Crew factors must be considered. Each ship type should have a certain physical characteristics, a certain feel. You should be able to push the ship and the crew to their limits and beyond -- for a price. What was needed was not a game but a simulation.

It took over six months to write STARSHIP COMMANDER. It was written with an eye towards detail and believeability. To accomplish this, the program was broken down into several modules: each module being a program in itself. When completed, the STARSHIP COMMANDER program was over 120K long, contained over forty major commands, hundreds of minor commands, and over thirty high resolution dynamic screens. The player was given the ability to control power, fire weapons, direct crew members by name, allocate repair droids, communicate with and scan the enemy vessel(s), navigate, and use on board computer systems to assist in the implementation of command decisions.

When playing the program, you never touch the keyboard as all the commands are displayed in a console like format and are entered via paddle. The screens were all done in color and graphic representations of data are displayed whenever possible.

PLAYING TIPS

The following are suggestions which should help you when playing STARSHIP COMMANDER. You should use these with the manual that is included with each game.

BOOTING PROBLEMS AND ERRORS:

Booting the program can be a problem if your disk drives are out of time or if the heads are not aligned properly. If you are having problems, please try the *alternate booting instructions* (these are on a small addendum sheet which is inserted in the rule book). Other problems and error messages that may occur during playing time are the direct result of disk problems. Version 1.1 (if you do not see a version number during the introduction, you have version 1.0) is more forgiving to disk problems.

THE CREW FACTOR:

The crew factor is probably one of the most unique features of STARSHIP COMMANDER. Each crew member has an *efficiency rating* and a *rank*. The efficiency is a measure of how well the crewmember is performing (maximum potential is 100% efficiency). The higher the rank, the higher the overall efficiency of a particular *team*. Rank, in and of itself, has no effect on individual crew member efficiency rating.

Some Recommended Team Compositions

(1) Lt. Commander
(1) Lieutenant
(1) Ensign
(7) Crewpersons

—or—

(2) Lieutenants
(2) Ensigns
(6) Crewpersons

—or—

(1) Commander
(2) Ensigns
(7) Crewpersons

The overall efficiency of all duty teams for weapons, engines, navigation, and defense directly affect the performance of the USS Ranger. The higher efficiency of the *weapons team*, for example, the higher the probability of hitting enemy targets and higher the damage levels. In addition, higher efficiency levels lower the probability of mis-fires or non-firing (crew members can forget). Sometimes the weapons team and the engineering team can get an extra torpedo or an extra weapon bank charged.

High efficiency levels in the *engineering team* leads to faster transfers of power to all systems (power will reach allocated amounts quicker), and higher performance combined with lower energy use in engines.

The *Navigation* efficiency level affects the turning radius, evasive manuevering, acceleration and deceleration levels as well as maximum and minimum speed levels.

The *Defense* efficiency level affects the damage levels, shield power maintenance and placement. If the defense team cannot do their job, the longer the medical injury lists will be.

In order to maintain higher efficiency levels in both the crewmembers and duty teams, you should:

1) Keep the most efficient teams on duty.
2) Keep the most efficient member on the duty team.
3) Make sure your team has enough officers (the higher the rank, the higher the overall team performance).
4) Make sure there is at least as much power being allocated to each station as there is being consumed.
5) Rotate your teams (Crewmembers need their sleep!)
6) Remember that changing duty teams will take five units and changing rosters takes ten and these units come from *life support systems.* Make sure you have enough power to rotate your crew without affecting *point 4.*
7) *Change the roster only when all three teams in a station are functioning below par (about 70).*

ENERGY:

The energy system is the life's blood of the Starship Ranger. Energy management is done primarily through the Engineer Station. Energy data is displayed in two forms: *allocated* and *actual.* Allocated power level is the power level to which the system is trying to bring itself. Actual is the amount that is currently in the system.

Some power (between 5 and 20 units) is regenerated in batteries each turn. The amount of regeneration depends on the engineering duty team's efficiency, the efficiency in the light engines and the speed that your ship is traveling. Energy consumption varies in your systems depending on the system (hardware) efficiency and crew efficiency.

DEFENSE SYSTEMS:

The USS Ranger is protected by four shields (Shield 1 — Forward, Shield 2 —Port, Shield 3 — Star-board, Shield 4 —Aft). High shield power and a highly efficient defense team will reduce damages and casualities.

High power in shields also reduces the striking force of the Ranger and decreases shield hardware efficiency. A good amount to maintain in shields is between 500-750 units of energy. Remember, shield power is the *slowest* in coming up to allocated amounts. You should distribute enough power to last two turns.

You should try to rotate the shield that faces the enemy vessels to allow a shield to bring itself up to allocated amounts. A good tactic to use is a continuous rotation of the vessel's shields by rotating the ship with manual pilot) when a shield's power is low (under 400). This will allow time for the droids to repair damaged shields without having the vunerable shield fired on by an enemy ship. It takes five units of power from general operations to repair every unit of damage.

Using auto shields is good for beginners fighting one ship as the computer does a reasonable job of allocating power to your shields. But, the system is too slow in reacting to a multi-vessel attack.

Semi-Auto may be used if the enemy vessels are not rotating around your ship and your ship is travelling at speeds less than *light 6.* This will maintain the allocated percentages of power in your shields. *Never place zero percent of power in shields using semi-auto distribution in Defense Station. This could prove disastrous. Especially in older versions.* I *personally* prefer the use of manual operation to allocate shield power from engineering. While this allows greater control, power levels *must* be examined and maintain every turn.

ATTACKING STRATEGIES:

It is best to concentrate attacks on one ship at a time. You should fire your torpedoes in salvos of three or six at a time with a spread factor of one. Higher spreads increase the probability of hitting with at least one torpedo, but decreases the number of possible hits. If possible, lock all tubes. This take an additional 20 units of power per torpedo, but increases the probability of hitting by 20%. Remember, tubes must be loaded within the last three turns in order to fire. Try to load all empty tubes every turn. Along with torpedoes, fire all the positrons possible. These being the ship's high energy weapons. By keeping the target ship on the forward shield, you are able to fire three banks at once (Positron 1 at full power, 2 and 3 at half). The estimated damage that can be inflicted on the enemy vessel using this strategy is usually between 250-400 units.

Try to keep attacking one particular shield of an enemy vessel turn after turn. This will prevent the enemy from bringing the shield up to its allocated amount.

The damage inflicted on an enemy vessel can be seen by going to the science station and examining the crew count and shield levels of the vessel. You will notice that the enemy's shields will decrease in power as it sustains damage.

NAVIGATION:

The distance in *megameters* that a ship travels *is the speed cubed.* Some recommended speeds are:

DISTANCE FROM ENEMY SHIP	RECOMMENDED SPEEDS
over 2000 megameters	light 8 — 9
1200 — 1500	6 — 8
500 — 1200	4 — 7
under 500	under 6.5

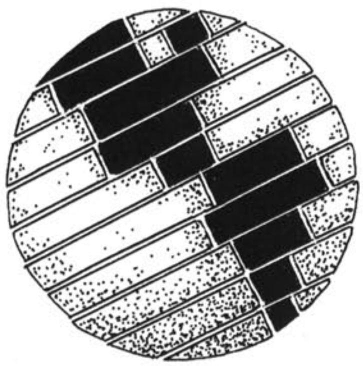
Be careful not to go too fast at close range as your ship will usually overshoot the target vessel, leaving your rear facing it. The rear positron bank only fires at *half power.*

These recommended speeds are different from the suggested attack (SA) speeds. You should only use the SA speed if you want to go on an all out assault and if you feel that your shields can withstand a heavy attack. The most effective speed is between .5 and 1 of a light speed less than the SA speed.

The *Auto pilot system* allows you to select the distance which you wish to maintain from the enemy vessels. It allows you to lock on either the vessel current position or future position. It is recommended that Auto Pilot be used only at closer ranges (under 2000 megameters), as if tends to make you travel faster than necessary, using up greater amounts of power and reducing maneuverability.

Semi-Auto and *manual* systems allow increasingly greater control. Again, these facilities can be used by an experienced player to take advantage of the ship's maneuverability.

Continued on pg. 46



REAL WORLD GAMING

By Dan Bunten

Game System Definition

The scene opens with an evangelist behind a pulpit gesturing wildly. He shouts, "We must stop the spread of the demon spawned arcade games that are destroying the minds of our people. Repeat after me—I believe in Strategy Games. . . ."

In the last installment of this column I described with great zeal the potential of "real world" games. There is a chance that some readers may have mistaken my enthusiasm for extremism. (I am not the evangelist in the opening scene!). I assure you that I do not hate arcade games. I indulge in contests of hand/eye coordination, sometimes for hours. However there is a limit to the pleasure I derive from games where the question is not "will I lose" but "*when* will I lose!"

So even if I respond to colorful graphics and animated action, I wish for more. I want something that tickles my cerebellum as well as my optic receivers. (I need a little meat with all those potatoes!) A game that combines strategic elements which stimulate the mind and brilliant action graphics which satisfy the senses is just what is needed. But, alas, no such product exists. . . .yet. My own efforts in three programs (**Computer Quarterback, Cartels & Cutthroats** and **Cytron Masters** - reviewed in this issue) have only scratched the surface. My abilities do not satisfy my imagination.

In the real world there are numerous examples of activities that are exciting as well as challenging. We have probably all wondered at times what it would be like to be a stunt pilot, a historic leader, a business tycoon or a great athlete. Why not have games that let us experience these things?

Both my formal education and professional career have been in a field called *Operations Research*. This field is devoted to finding ways to use mathematics and statistics to solve difficult real world problems. Practicioners of *Operations Research* attempt to create mathematical models of complex real situations so they can examine them better. For instance, since the first "energy crisis", numerous federal agencies have been working on energy consumption models to determine the effects of changes in resource availability. The people involved have been attempting to reduce this complex problem to a group of mathematical equations that form a model. Using this model they could try out various actions and strategies that would be too dangerous or costly to try in true life. Many of the techniques used in these important applications can be scaled down for use in simulation games to give them more of the *feel* of the real world.

The goal of the next several installments of this column will be to share information about how simulation games are constructed. Hopefully, this information will be useful not only to game developers (and potential developers) but to anyone interested in the game world that extends beyond arcades. I am sure you will be surprised at how little formal math training is needed to understand most of the techniques used in simulation.

Where do you start if you want to make a simulation game? The first step is to define what's called the "system". A system is a group of related elements and processes that function together. For instance, the digestive system in your body is made up of the organs that are involved in digesting the food you eat. However, you cannot describe a system by simply naming the objects included in it. You must also define their functions and relationships. In addition, to really understand your digestive system, you also need to know how it relates to your whole body and the outside world.

Thus, the first step in designing a game is like the first step in designing anything — describe your area of interest. In the case of a simulation game this "area of interest" is called the system and your eventual objective is to create a model of the field selected. The model should work much like the real world situation. The creation of this type of game will normally follow these phases:

1) *System definition*
2) Data Collection
3) Model Development
4) Programming
5) Play Testing

These phases would also apply to almost any complex game even if the setting was a fantasy rather than reality (for example, Dungeons and Dragons type games).

The *System Definition Phase* can be further divided into:

a) define the boundary of the system and its objective
b) list the internal system elements
c) list the relationships between the elements
d) list the outside influences on the system

The System Definition Phase is like making an outline of your subject for a speech or an article. Much of this process is purely mental. You are simply organizing your thoughts about how the system works by committing your ideas to paper. Defining the system boundary is a particularly abstract problem since real systems are not isolated but gradually flow into one another. The boundaries between systems are in how we look at them. The actual world has no boundaries. However, the difficulty of this step is considerably reduced by the fact that there is no wrong way to divide a system from the rest of the world. Any way that makes an enjoyable game is correct (and there is no

formula for enjoyment).

For instance, in a war game the boundaries could be drawn broad enough to include all the political, financial and logistical problems involved in waging an entire war. In the other extreme the boundaries of the system definition could be set to include only those things that take place on a single battlefield within a certain space and time zone. There in no *right* system boundary. A successful game can be created out of any system definition whether broad or narrow. The only difference is the data that will be collected to create the model. A very broad system definition will not allow a great deal of depth in any aspect. This type of game must concentrate only on the most "significant" elements and relationships of the system. An example of this kind of wargame is the board game **Diplomacy** which covers the whole military/political situation of World War I. A "narrow" type of system definition can simulate a field to a greater depth by sacrificing breadth. Various football simulation games take this view of the sport. They concentrate only on the interaction of offensive and defensive play selection on the gridiron. These games ignore all things outside their system boundaries. They disregard such things as player salaries, recruiting, training, creation of new plays and coaching in their simulation of football. There is absolutely nothing wrong with ignoring things outside your chosen system boundaries. Every boundary includes some things while excluding others. You need only concern yourself with the interactions that are important to the system as you define it.

Having decided on the boundaries of your system, you should define the objective of the system. In many cases this may be obvious. For instance, the objective of a football system is scoring points to win the game. The objective of a wargame is winning the battle by meeting certain conditions of victory. Even if the goal of your system is obvious, it is still helpful to spell it out. This is because the objective determines what elements of the system are important to the outcome of your game. If you are doing a business game you may define the objective to be accumulating profit. Then, only things that affect profit will be important in your game.

This leads to the next step in the System Definition Phase in which you list the elements of the system. For example, in designing a business game to simulate a production environment, the element list of the system might be as follows:

Raw materials
Production plant
(buildings and equipment)
Work force
Finished product
Money spent in advertising
Amount of product sold etc.

There is a natural tendency of people when making lists to attempt to include only parallel items. However, the element list will normally consist of elements that are derived from other elements. They will be from different "levels". In addition, some things will be more tangible than others. You do not want to reduce your list to the lowest common denominator. (A list of the proteins that make up the digestive system organs is worthless as an element list for that system). Your list just helps you find the main pieces of your system, regardless of their level or type.

Once you have a reasonable list of the elements of your system, you can begin to map out the relationships between those elements. These relationships lead eventually to influence the system objective. Initially your understanding of the relationships will be very crude. But, you should at least be able to say what things affect others even if you can't say how. Using the list in the business example above we can state some of the relationships as follows:

Finished product =
Raw material ? Labor ? Plant
Units sold =
Finished goods ? Advertising
Profit =
Units sold * Price — Costs

We use the question mark (?) above because we do not know the type of relationship between certain elements (whether +, -, *, etc.). All we can say about *Finished product* is that it is affected by *Raw material*, *Labor* and the *Production plant*. Also, *Finished product* along with *Advertising* affects the number of units that are sold. (Only in the last example given above is the mathematics of the relationship of the elements really known.) However, this simple process of determining who does what to whom, helps refine our idea of the system. For instance, in the above list we identified two new items that need to be added to our element list: Price and Costs.

Also, notice the objective of the system, *Profit*, is included in the relationship list. In fact, only relationships and elements that are linked directly or indirectly to the objective should remain in the lists. The process of refining the element and relationship lists should continue until all your elements are linked in some way to other elements and the objective. Any "dead ends" that don't link should be thrown out. (An element that doesn't affect any other element is as useless as the appendix in the digestive system.)

The last step in the System Definition Phase is to list the external influences on your system. Since the system boundary you chose was arbitrary, some way is needed to show how your system interacts with the rest of the world. For instance, using our business game example again, the outside influences might include:

the rate of growth in the
economy
the inflation rate
the cost of taxes
and government
regulations etc.

The criterion for considering something an inside element or an outside influence is whether that thing can be changed by the system. If the system can change it, then it is really inside the system. If the system is affected by it but cannot alter it (in a significant way), then it is an outside influence.

Although these steps in the System Definition phase were listed in a logical order, it is often difficult to complete them sequentially. In fact, you should expect to loop back through the steps as much as needed until you have a fairly complete picture of the system you want to simulate. Two notes of caution are appropriate here. First, don't censor your thinking. It's important to let your mind run free - at least at first. Later you can separate the wheat from the chaff. Second, make your lists as complete as possible. It is easier to make a realistic game playable (by eliminating elements later) than it is to make a simple game realistic.

In the next issue of this column we will look at how to collect the data to create your model.

NEW SCENARIOS FOR INVASION ORION

by Floyd Mathews

BASIC INFORMATION

NAME:	Invasion Orion
TYPE:	Strategy
SYSTEM:	Apple, Atari, TRS-80
FORMAT:	Disk or Tape
# PLAYERS:	1
PRICE:	$24.95
PUBLISHER:	Epyx 1043 Kiel Court Sunnyvale, CA 94086

If you have experimented with *Automated Simulations'* INVASION ORION, you have probably learned how to beat the computer easily in the ten original scenarios. When building new scenarios you may be giving the computer's side more value points than yourself for balance. This is not always necessary because, even with equal value points the villainous Klaatu can be a tough opponent if they have suitable ships *and* if the new scenario is properly designed. If you try these new ships against your own favorite designs, I would be interested in reading about your results in future issues of CGW.

The player has several natural advantages over the computer. Let's deal with the major advantage first. *If the player knows the capabilities of the computer's ships, he can easily win.* It is easy to eliminate this advantage. Simply get a friend to assist you in designing the scenario. You can agree on the number of value points for each side and certain limitations discussed below. You secretly design your own fleet and your friend secretly designs the Klaatu fleet similar to one of the model fleets in *Figure 1*. You can likewise assist your friend in preparing a new scenario for him to play against an unknown and mysterious Klaatu fleet.

You will find that this step, by itself, creates a much more challenging scenario. The computer's ships are more unpredictable, and potentially more dangerous, if you do not know their capabilities.

The player has several other advantages over the computer. *He can "perceive" the overall situation and coodinate the actions of his ships.* The computer basically issues orders to its ships as individual units. The player fires more offensive torpedoes and misssiles and can aim them more intelligently. Most players fire defensive missiles to protect their large ships from torpedoes, but the computer sometimes leaves its ships exposed. The player has the option of using tractor-pressor beams, but the computer doesn't. Finally, most players tend to fully energize shields when close to large enemy beamships, but the computer merely allocates whatever energy remains after movement and fire.

Despite these disabilities, the Klaatu can be deadly if you give them special ships designed to minimize their inferiorities and maximize their strengths. Before looking at these special ships, let's first examine how the computer plans its move.

The computer first predicts the player's move and then moves its ships in the general direction of the closest human ship. Some of its ships will move in a random direction, but gradually the Klaatu will close with the human fleet. The Klaatu will fire beams if possible, but at usually less than full power. If they opt to fire torpedoes, they will not fire any missiles except, possibly, defensive missiles. And, if they opt to fire offensive misssiles instead of torpedoes, the missiles will usually be aimed at the beam target.

What ship designs are best suited for the Klaatu? None of the designs in the battle manual are good because they are multi-purpose ships which require human "perception" for optimal use in different situations. instead, it is better to create new special purpose designs in order to limit the chances of the computer making a stupid move.

The computer should have one large beamship because this is the weapon it uses most often, and it will become more effective as the computer gradually shortens the range. The beamship should be initially deployed behind a screen of tiny missileboats in the hope that they will protect it from torpedoes for at least the first few turns. The beamship should have speed of about four. Just fast enough to make it a difficult target, maximum but not to risk its racing in front of the screen. it should have a small number of missiles in hope that it might use one defensively if it is exposed to torpedoes.

The beam itself should be disproportionately large, as much as a quarter of the Klaatu value points. A disproportionately large beam is needed because the Klaatu frequently use less than full beam power. The energy level should be slightly above the beam value as damage points will most often be subtracted from the energy level, and because, at point blank range, the Klaatu often shut down other systems to fully energize a savage beam attack. A beam quality of five is adequate, any more is too expensive.

The computer is ineffective in using shields, so don't give any (except possibly a small shield on beamships of over 50 points). Instead, put the maximum of three inches of armor on the beamship. Shields are a bad investment for two other reasons. They are useless if no surplus energy remains to operate them. Shields are less efficient than armor, because the armor value is subtracted from each individual attack on a ship, while the shield value is only subtracted once from the aggregate attack value. Indeed, armor is so efficient that I recommend a maximum thickness of three inches in designing new ships for both sides. Otherwise, both sides could build literally indestructible ships with several feet of armor and nothing else. Three inches is the maximum used in any of the designs in the manual, and I find this ceiling provides fast, exciting scenarios with fewer stalemates.

Don't build more than one beamship. Extra ones will just duplicate your costs for armor and launch tubes, and increase the risk of the Klaatu a decisive torpedo or missile hit.

The screening missileboats should be small so that they will be hard targets for beams, and cheap as they will probably be the first struck by torpedo attacks. Dispersion of force is the main idea in designing screening boats. The more you have, the more likely it is that one of them will stop a torpedo from crippling the valuable beamship. But you can't afford to waste a lot of value points on them. Three or four missileboats are enough for the screen. Each boat should have no more than two tubes,

eight missiles, and no armor (they *are* an expendable force).

The Klaatu fleet should have no torpedoes because, if the computer decides to fire them, it will fire fewer missiles on that turn which may expose the beamship to the player's torpedoes. Most veteran players will always carefully protect their capital ships from torpedoes in any case. The screen will hopefully allow the beamship to close to effective range before it is blown to smithereens by the player's torpedoes. There is further a chance that the Klaatu missileboats will score several missile hits on the human fleet and, while their main function is to stop torpedoes, this is a nice dividend.

The initial placement of the Klaatu fleet is very important. If the player knows where they will be before he places his own ships, he may be able to arrange a nasty little ambush. I recommend that you always set up the Klaatu at the top within three spaces of the edge, and the player can deploy his ships anywhere within three spaces of the bottom. The exact positions should of course be secret until the game begins.

Fleet *A* in *Figure 1* is an example of proposed Klaatu fleet of fifty value points. Some of the missileboats may be slightly weakened for variety, with corresponding increases in the size of the beamship. Fleet *B* is an example with one hundred value points. I recommend a maximum of fifty points for each side for a fast game, and also because the player's superior intelligence gives him a better chance for winning if he has more material with which to work. Any game with Fleet *B* will last longer than a game with Fleet *A*, so I have given Fleet *B*'s beamship more missiles and tubes for greater endurance. But, notice that the screen for fleet *B* is actually cheaper than the one for Fleet *A*. Each missileboat in Fleet *B* is minimal, and I don't recommend building anything smaller. Additionally, the *B* beamship has so much wasted energy when it doesn't fully energize its beam, I gave it a small shield hoping to provide protection against any near misses by missiles. Fleet *E* contains screening boats with torpedoes. This configuration is effective against players who neglect to use defensive missiles.

If your friends have read this article, or if they begin to adapt their tactics and designs with fleets like *A* and *B*, you should occasionally give the Klaatu a different force. The player has a big edge if he can anticipate the composition of the Klaatu fleet. Fortunately, there are two other types of fleets which the computer handles well.

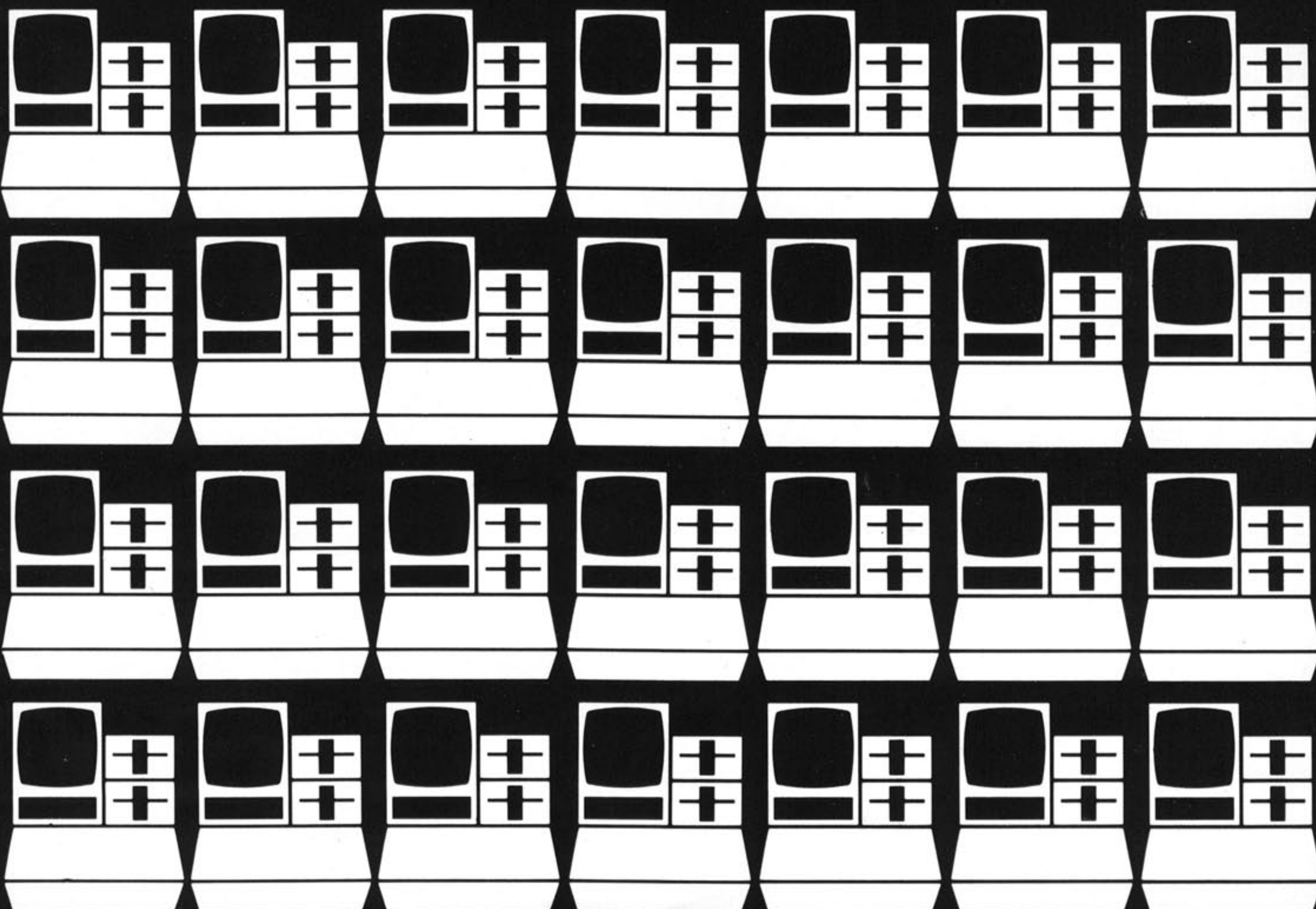
Large numbers of tiny torpedoboats or missileboats can be effective. You can mix both weapons in the same fleet only if each boat has both weapons, as the computer won't utilize the single weapon ships on certain turns. Fleet *C* is an example of a torpedoboat squadron of fifty points. This design can be devastating to a player who is not expecting it. In playtesting for this article, this design sometimes destroyed the entire player fleet *on the first turn*. They initially must be spread out across the top of the playing area, not bunched together, in order to get good torpedo angles. Fleet *D* is an example of a missileboat squadron of fifty points. They should be initially placed close together in the hope that they will combine their attacks against one human ship.

I have several miscellaneous suggestions for improving the Klaatu's chances. First, and most obvious, let the computer use the expert skill level. Against a very experienced player, you should give the computer 10% to 20% more points than the human player. The types of missiles and torpedoes agreed upon for both sides can affect play balance, so you should agree upon this before designing your fleets. Lastly, if the player uses the effective but boring, torpedo defense of sitting in a corner behind a few missiles, I suggest you give him a special victory condition which will draw him out — such as requiring him to occupy by turn five, and hold, a central region of the playing area.

One of the strengths of a game like Invasion Orion is it's ability to create new scenarios. I hope the scenarios offered here will stimulate renewed interest in this fine game.

Figure 1: Model Fleets for the Klaatu

No. of Ships	Class	Atari Symbol	Max. Sp.	En.	Dr.	B.	Sh.	Ar.	L.	Mis.	T.	Mass	V. P.	St. Loc.	B. Q.
Fleet A:	four ships and fifty points														
1	Beamship	4	4	10	4	8	0	3	1	4	0	.86	26	15.2	5
3	Missileboat	12	4	3	1	0	0	0	2	8	0	.22	8	18.3	5
														15.3	
														12.3	
Fleet B:	five ships and one hundred points														
1	Beamship	8	4	28	11	23	4	3	4	24	0	2.56	80	15.2	5
4	Missileboat	12	7	2	1	0	0	0	1	4	0	.14	5	15.3	5
														18.3	
														12.3	
														21.3	
Fleet C:	eight ships and fifty points														
1	Torpedoboat	12	9	3	2	0	0	0	1	0	4	.22	8	2.3	5
7	Torpedoboat	12	5	2	1	0	0	0	1	0	4	.17	6	6.3	5
														10.3	
														18.1	
														23.1	
														30.1	
														35.3	
														39.3	
Fleet D:	six ships and fifty points														
2	Missileboat	12	4	3	1	0	0	0	2	12	0	.25	9	20.3	5
														27.3	
4	Missileboat	12	4	3	1	0	0	0	2	8	0	.22	8	17.3	5
														23.3	
														14.3	
														20.2	
Fleet E:	six ships and fifty one points														
1	Beamship	4	4	7	3	5	2	3	1	4	0	.69	21	20.12	5
5	Hybrid boat	12	5	2	1	0	0	0	1	4	2	.17	6	20.3	5
														24.3	
														28.3	
														16.3	
														12.3	



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MICRO - REVIEWS

FIREBUG



BASIC INFORMATION

NAME:	Firebug
TYPE:	Arcade
SYSTEM:	Apple II
FORMAT:	Disk
# OF PLAYERS:	1
AUTHOR:	Silas Warner
PRICE:	$24.95
PUBLISHER:	The Muse Company 347 N. Charles Street Baltimore, Maryland 21201

Yes. I made an "ash out of myself." In spite of negative publicity arising from the initial ad campaign (will you make an "ash" out of yourself?) and its "ash-umed" pro-arson viewpoint, FIREBUG really does no more to promote the "ash-pirations" of would-be arsonists than "Pac-Man" does to promote over-eating.

FIREBUG is essentially a maze-chase game. The game consists of five mazes, which represent five floors of a building. The FIREBUG runs through the floor, picking up gas cans and dropping them where they will cause the most damage. Since the score is based upon the destruction of each floor and the game has a "Great Scores" capability, the greater the conflagration, the bigger the gamer's reputation becomes. Instead of having the FIREBUG chased by other characters, However, the danger comes from the FIREBUG's own flame. The flame following along the fuse is dangerous. If it catches the FIREBUG, the game is over and the computer informs the player that "You made an ash out of yourself." There are four basic options that the gamer will appreciate about this game.

First of all, FIREBUG offers a choice between either a keyboard configuration or joystick set-up to control the FIREBUG (the cursor which represents the character). The keyboard arrangement, using A, W, S, D, and X is familiar to the typical arcade "addict" and seems to be more responsive than the Apple (ex-TKC) joystick used for this review. The joystick potentiometers do not always read the stick position properly (a problem that exists in the Apple joystick, not the software).

Second, instead of seeking "boosters" or "power pills" that appear randomly after certain scores are reached or time is expired, the gamer is allowed to immediately see the number of gas cans available on each floor. Because of this, the player has a better opportunity to plan out his strategy accordingly. The gas cans may be picked up by maneuvering the FIREBUG character directly over the gas cans and pressing the "return" key. The cans may be dropped in strategic places by pressing the "space bar".

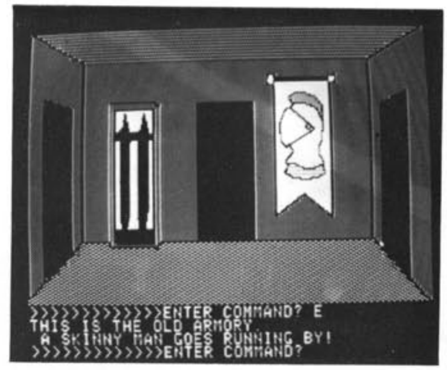
Third, instead of being at the mercy of the mazes, the gamer has a real chance to do something about them. Here is where the frustrated arcade "addict" can finally wreak revenge on those infuriating mazes, since the gamer gets to burn down the mazes themselves. Just imagine, a game where the boundaries (symbols of authority) are systematically destroyed for fun and profit (points for a good score) and the gamer allows his repressed rage (toward other maze games?) and submerged desire for civil disobedience (Molotov cocktail syndrome?) to have free reign on a color monitor. Who knows, perhaps some *catharsis* may even take place within the gamer's psyche.

Fourth and last, the game provides for a continuing challenge and longevity of interest by means of its skill level. The player has the option of selecting fuse length. Since fuse length determines how closely the actual flame will follow the FIREBUG, a long fuse provides for an easier game than a short fuse. So, a player can adjust the skill level prior to any game by adjusting the fuse length. The shorter the fuse, of course, the more bonuses available (as the axiom goes, the bigger the monster, the richer the treasure).

FIREBUG seems to have the ingredients necessary for a successful arcade game: interesting graphics, sufficient challenge, moderate strategy, and ample flexibility. Indeed, "ash" far "ash" this reviewer is able to "ash-certain," this game is an "ash-set" to an "ash-tute" arcade lovers "ash-sortment" of games. Unab-*ash*-edly,

Johnny L. Wilson

THE DEMON'S FORGE



BASIC INFORMATION

NAME:	The Demon's Forge
TYPE:	Aventure
SYSTEM:	Apple
FORMAT:	Disk
# PLAYERS:	1
AUTHOR:	Brian Fargo
PRICE:	$29.95
PUBLISHER:	Saber Software 8 Winged Foot Lane Newport Beach, CA 92660

THE DEMON'S FORGE is a 48K graphic adventure similar in appearance to much of the software produced by *Sierra On-Line* and *Highlands*, though it has been introduced by a new company, *Saber Software*. The similarities between THE DEMON'S FORGE and other adventure software end at this point; in fact, in most areas DEMON'S FORGE is a step ahead of conventional computer adventuring.

The packaging is unique in appearance, the cover art having been painted by a top fantasy artist from the staff of Heavy Metal. The documentation within is descriptive yet functional, giving a background detailed enough to convey a solid purpose without laboring in details. The operating instructions are clear, though are almost identical in nature to those of past adventures. Anyone who has ever sweated out a graphic adventure before will feel

quite at home with THE DEMON'S FORGE.

You are a mercenary of amazing martial skill, your prowess being legendary in the arenas and battlefields of your land. You have fought often in the service of your king, a harsh yet fair monarch with an iron sense of justice. You are arrested for a crime punishable by death — brawling with the king's guards. Yet, in considering your past services to him, the king has left your fate in the hands of the gods — he has banished you to a dungeon network of ancient origin known as the DEMON'S FORGE, so named because its overseer is a demon of unquestionable power. No one has ever returned from there alive.

As a prisoner within the demon's stronghold you must escape the traps and foes left for you, and wend your way to Anarakull himself, to a final combat which will proclaim your fate and perhaps allow you to escape and regain your freedom.

The adventure is, in rough similarity, akin to your typical dungeon fantasy excursion, which to many might seem like a meaningless jumble of traps, puzzles, and disconcerted ideas. And yet, when seen in the light of it all, being a subterranean stronghold governed by a supernatural creature who has laid cryptic traps to catch the unwary intruder, it gains a cohesion and purpose which many adventures lack.

The hi-res graphics are quickly drawn and admirable. They get better as one goes farther and farther into the labyrinth, as if greater care was put into the later art.

One unique function of the game is minor, though perhaps a necessary addition to future adventures. On the "restore game" feature, in which you are allowed to resume one of ten previously saved games, you are informed of the last game you saved to the disk. It is a blessing to the player who is constantly updating his game position and might forget the number of the previous game he left off at.

If I had to make a serious complaint it might be that THE DEMON'S FORGE has several rooms which appear both intriguing and significant (example: a room shaped like a hemisphere, entitled "The Bowl Room") which in fact have no real purpose in the solution of the adventure.

While the majority of the traps, riddles, and poems make sense, they nonetheless take real consideration at points before progress can be made. The adventure is divided into sections, or levels, and normally everything must be completed on one level before a player may move to another. While completion of THE DEMON'S FORGE is undeniably a challenge, I would not say it is difficult to the point of ridiculousness.

I enjoyed THE DEMON'S FORGE and, on the whole, would recommend it to anyone. To those who might play it and get stuck, I offer these words of advice:

1. Write down all hints and poems given to you, and consider their meaning carefully.

2. Items, or even entrances to areas of the labyrinth might be hidden from sight until you somehow eliminate the object blocking them.

3. Consider the roles of the elements and elementals. . .

Michael Cranford

EPOCH

BASIC INFORMATION

NAME:	Epoch
TYPE:	Arcade
SYSTEM:	Apple II
FORMAT:	Disk or Tape
# PLAYERS:	1
AUTHOR:	Larry Miller
PRICE:	$34.95
PUBLISHER:	Sirius Software Inc.

As you are looking over the stars through your fighter's windshield, your fuel gauge reads *low*. You begin to accelerate and speed through space, looking for some sign of help. All of a sudden, your eyes spot blinking lights off in the distance. You rush toward it and, as your fuel gauge reads less than 20 gallons, you rush into the docking bay. A loud "DA-DA" is heard, you fly out with a full supply of fuel and ammo.

Now, you notice that your time is running out. Your adventure is about to end and you need more time. You begin to fly through space with your new load of fuel, looking for an entrance into the fourth dimension. Up ahead there is a strange, number-sign (#)-shaped thing. You head toward it and, as you go through the center, you hear rewarding music, and a journey begins backward through time. Twisting tunnels lie ahead and, while you travel through them, time flows backwards. The ship exits the tunnel with plenty of time left to destroy enemies, and continue your travels, firing off into space, nearly crashing into enemy ships and their fragments.

This is the world of EPOCH. The objective is as simple as most: destroy as many enemy ships as possible, for as many points as you can get. There is the usual limited amount of ammunition, and fuel, both of which can be replenished by a docking with a base. But EPOCH has an added feature: a time limit. If time runs out, your adventure is over; just as if you had run out of fuel or ammunition. Time is restored just as easily as either of the other two, but by entering the fourth dimension. A little more difficult than docking with a base, for you must proceed through a tunnel in space once you have entered.

The game is played with a joystick (it can be played with paddles but is much more difficult). You see space as if you were looking through a windshield, as stars and various ships (about 15 kinds) pass by your fighter. The only way to score points is by destroying ships, but, as you play, you will find that more of your time is spent attempting to extend your odyssey.

The top of the hi-res screen is reserved for your control panel which tells you several things: fuel, time, ammunition, speed, and score. The graphics in the game are truly excellent—as good as any I have seen. The stars pass by you in speeds inversely proportional to their distance from you and, as your ship turns, they scroll across the screen smoothly and naturally. The enemy ships can be spotted well in the distance and, as they near you, the enlargement is perfect. With a ship far in the distance, it may zoom across the screen at the slightest turn. But, when they get closer (they may come inches away) you can spend ten seconds just traveling across the ship, if you stop your forward movement. There really is that much detail put into them.

The sound effects in EPOCH are also very well done. There are four major sounds: the introduction, the destruction of an enemy, the docking with your mother ship, and the entrance to the fourth dimension. Each of these are different, and each has its own "spacy" effect. I person-

ally enjoy entering the fourth dimension for the sound alone, and then work my way through the tunnel of space.

EPOCH is one game that is very difficult to tire of, until one has completely mastered it. This takes quite a while and, once done, there are always new ways to approach the galaxy. You can try many daring things. I enjoy coming right into my opponent's face, stopping, and then blowing him up. You can also try to go through the small docking bays at high speeds, and many other things that will insure your enjoyment and excitement with the game.

If you are the type that likes simple games, like *SpaceInvaders*, pinball, etc., you will probably have a bit of trouble adjusting to EPOCH, which at times can be a very high speed game. Most computer gamers, especially space and shoot-em-up lovers, will enjoy this game. It is planned out in detail, and well programmed.

Barry Gittleman

CANNONBALL BLITZ

BASIC INFORMATION

NAME:	Cannonball Blitz
TYPE:	Arcade
SYSTEM:	48K Apple][/][+
FORMAT:	Diskette (3.2 or 3.3)
# PLAYERS:	1
AUTHOR:	Olaf Lubek
PRICE:	$34.95
PUBLISHER:	On Line Systems 36575 Mudge Ranch Road Coarsegold, CA 93614 (209) 683-6858

Donkey Kong for the *Apple*; at last! Well — almost, that is. The familiar gorilla has been replaced by a rigid soldier, the rolling barrels are now rolling bombs, and the beautiful maiden towards which you strive has been replaced (alas!) by a flag.

What has remained the same about this game is it's incredible challenge. This is not a game for someone who likes to sit down for ten minutes and play something simple and relaxing before going to bed. CANNONBALL BLITZ is an addicting, hair-tearing game that cannot be turned off. After playing a game or two, you will be convinced that absolutely no one can play this thing. Skill, however, does gradually come; and soon you'll have even greater challenges to frustrate you.

The first level starts with you at the bottom of the screen, an enemy soldier at the top, and several ramps zig-zagging across the screen from top to bottom. The soldier then begins lighting bombs and rolling them down the ramps toward you. The mission is to get up the ramps and capture the enemy's flag without being run over by any of the bombs. The only way to get from ramp to ramp is to be thrown up there by one of the catapults on the ramps. A bomb falls through one of the trap doors on the ramp, drops to the next level, hits the one side of the catapult and, if you're on the other side, up you go. There is another way to go up a level. That is by catching one of the balloons that occasionally fly by. I strongly advise that you ignore these however, as they seem to invariably deposit you on the next level directly in front of a rolling bomb. The only time the balloons are needed is when you reach the top and you have to get to the flag. When you finally do get to the flag, you are ready to go on to the next level . . . *The Cannons*.

The Second level begins with you at the lowest of six floors. There are 2 or 3 ladders going up from each floor and, on each of the floors, there are 2 rivets. All one needs to do is to run over each of these 12 rivets and the whole structure will come down, the guard at the top falling to his death. (This *is* war, you know). This would all be quite simple, if it weren't for one little thing: the cannons. These little critters just won't leave you alone. They can kill you by running you over or they can give you a nice cannonball in the gut. They can follow you up and down ladders, but they *cannot* jump over the gaps left by the rivets that are popped. Also, on two of the floors, there are hammers with which you can mash the gunpowder out of the cannons. It should only take you a few decades of trying before you manage this feat, and by then you'll be ready for the next level.

On the third level you find yourself on a ledge surrounded by a variety of ladders, steps, and two large elevators (one going up, one going down). The *only* things that can stop you from getting to the top and completing this level are cannons, bouncing bombs, flying cannonballs and a big soldier with a very big cannon. (Really, that's all.)

When (if) you get that third level flag, you can relax for a minute and watch the intermission provided for your entertainment. Then, it's back to the battlefield and the same scenario as the first level — only this time someone must have put shorter fuses on the bombs, because they now have the nasty habit of exploding while you are jumping over them. I'll let you find out about the next levels for yourself (mostly because I haven't gotten to them myself yet).

In the final analysis, CANNONBALL BLITZ is a game every bit as challenging and fun as the arcade original. It will give you hours (days, months, years) of enjoyment.

Ron Brinkmann

BATTLE TREK

BASIC INFORMATION

NAME:	Battle Trek
TYPE:	Strategy/Action
SYSTEM:	Atari 32K
# PLAYERS:	1
AUTHOR:	Chris Frazier
PRICE:	$39.95
PUBLISHER:	Voyager Software P.O. BOX 1126 Burlingame, California 94010

You are the commander of the USS Ranger, starship on combat patrol in this sector. Suddenly your shields go up and several Mesons hit Shield 1! There were no reports of enemy activity in this sector but the computer quickly provides the unexpected information. Identification: VEGAN!! Adrenalin pumping, you hear yourself give the order — "Fire Positron 1"! You watch as your positron fire impacts on the Vegan's shields. The Ranger takes evasive action, only to meet a hail of positron fire. Damage reports flood the bridge.

Welcome to BATTLE TREK, the newest release for the *Atari* computer from *Voyager Software*. The object of the game is destruction of the Vegan starship. To do this, the player must fire various weapons to wear down the enemy's shields until a well placed shot can destroy the Vegan ship. All commands are entered via joystick; allowing the player to fire weapons, launch probes, pilot the ship, scan space, and redistribute power. There is no scoring because the game ends when one or both ships are destroyed.

Continued on pg. 44

READER COMMENTS

In Reader Input Device #3 we asked "WHAT IS YOUR BIGGEST COMPLAINT ABOUT COMPUTER GAMES ON THE MARKET TODAY?" Here are some representative answers (Obviously, the views expressed in the quotes are those of the reader, not necessarily those of CGW.

PRICE...

Computer games are overpriced! 15 to 25 dollars is within reason and competitive with noncomputer games, and returns a fair profit. $30 to $60 (and up) is not justified. If there were fewer $40 games, there might be less piracy. Avalon Hill has the right idea.

Most new games are overpriced. Only a few are worth the price — such as WIZARDRY, ZORK I&II and DEADLINE.

There should be a greater variety of games at lower prices. Some arcade games should sell for $12.99.

[Ed. Note — The largest complaint according to our survey is the question of price. These three responses are typical of dozens of others we have received. In our discussions with computer game manufacturers we are told that the reason for the current pricing structure is that the volume of sales is not large enough to price games any lower. The computer gaming industry is small in comparison to the board game industry which has a much larger sales volume. With the smaller market, a profit must be turned on a smaller number of units sold, hence the current price structure. Prices will come down as the market grows and volume allows a lower unit cost. CGW is an example of this. Our magazine costs about the same as the big computer magazines but contains considerably fewer pages. Our circulation is about 100 times smaller than the big magazines and therefore our cost per "book" at 40+ pages is about the same as their cost per "book" at 200+ pages. Volume is the key in pricing.]

GRAPHICS...

Graphics are not good enough. If a programmer is going to take the time to make a game, he should take time to make excellent graphics.

Then there is this comment:

Too much emphasis on graphics. HORIZONS looks good but I would trade it and TUNNEL TERROR for any of the SWORDTHRUST series and give change as well.

COPY PROTECTION...

My biggest complaint is that most of the software is copy protected and with two grandkids using the computer it's important to have a back-up. If there are companies offering copyable software I'll buy all my software from them.

Protection schemes hurt the average user. You cannot back-up; upgrade (to hard disk, etc.); or make any modifications to the program.

LACK OF IMAGINATION...

There is lack of imagination by many designers. Many writers copy programs that have already been done.

There is a lack of imagination in creating a truly great football game for the Atari (especially with Atari's graphic capabilities). Certainly some of the intricacies of ALI BABA and the INTELLIVISION FOOTBALL game should give Atari writers the imagination needed.

Many computer games show little creativity in game concept.

COMPUTER'S POWER NOT USED...

Computer wargames are not utilizing the full potential of the computer. The computer's strategy in player-vs-computer games is so set that after a lot of playing, you know what the computer will do every time.

[Ed. Note — There is no substitute for a live warm-blooded human opponent with all his/her idiosyncracies and mysteries.]

Many computer games don't take advantage of a particular computer's special features. For example, there are too many Atari games which are nothing more than Apple translations which fail to use the full graphics ability of the Atari.

ARTWORK...

Advertisements make a lot of games seem more interesting than they really are.

Games don't live up to the fantastic artwork displayed on the cover.

NOT ENOUGH...

Other than those by SSI there are not enough wargames of any quality. EASTERN FRONT is good, but Avalon Hill's games suffer from using seperate maps.

[Ed. Note - SSI uses seperate maps as well. Many of our readers tell us they like the use of peripheral maps.]

There are not enough strategy games and too many poor versions of arcade games.

There are not enough sports simulations with orientation towards solitaire play (from an Atari reader).

There are not enough strategic (war or space) games on the market for the Atari computer.

There is a senseless preference shown for Apples and Ataris over the TRS-80 graphic junkies.

There is not enough realism in computer games today.

Software documentation is lacking.

OTHER PROBLEMS...

The quality of many games on the market is a problem. Many games are released too early. More work and testing would make many games better.

Most games are interesting for only a short period of time.

High scores are not recorded permanently. More sound effects are needed.

Poor user friendliness and low realism in strategy games.

Too many arcade games.

It is very difficult to tell the dogs from the gems. Reviews in magazines such as CGW help a lot.

Adventure games which use graphics should use Arcade speed melee.

Too many games are first developed for the Apple then converted to the Atari. Atari users must then suffer with sub-par graphics and sound.

* *

We also provided an opportunity for you to make **OTHER COMMENTS**. Most of you used this section to comment on CGW. Here are some responses:

The design, print, and paper quality of CGW is excellent; the best on the market. I appreciate this! Keep publishing honest and discerning reviews.

On my last issue pages 4 and 37 were missing and I had an extra page 14 and 17 in their place. I was disappointed to be unable to finish the "Warp Factor" article. *[Ed. — Oh, the perils and pitfalls of publishing! We apologize and will replace any magazines that have this problem. If you have a magazine with missing pages send it back and we will send you a replacement copy and reimburse you for the postage.]*

Great magazine! Especially the columns on game development (i.e. Silicon Cerebrum and Real World Gaming).

Please improve proofreading.

Micro reviews are quite helpful.

Add more pages and I will subscribe. *[Ed. —The old Catch-22 syndrome. See prior comment in "Price. . ." section. O.K., you win, we have put in more pages. Now send us your subscription.]*

CGW has great promise. The contents are well rounded. Not all articles will appeal to everyone but there is something for everyone.

Go monthly and put in some Atari articles. This past issue had more for the Atari than others. But Apple users have enough magazines of their own without giving them 3/4ths of this one also.

Apple games are of interest to most of your readers. Let's review more!

[Ed. — Balanced? More Atari? More Apple? What about TRS-80, IBM, Vic-20, etc.? What's a poor editor to do? The coverage in CGW is determined by several factors: what we receive in the way of review copies; what articles our writers submit; what is new and different in the hobby; what size of the gaming market owns each of the different machines. Our present coverage comes close to the ratio of the various markets. The Apple market makes up the majority of game titles, gamers, and CGW readers; Atari is second with TRS-80, IBM, Vic-20, and a few others following the current "Big Two". If you have been following CGW at all, you know that we are expanding our Atari coverage. What we like to see, of course, are more games that run on a variety of machines. For example, this issue contains an article on scenarios for INVASION ORION. Since IO runs on both the Atari and Apple, more readers are interested in this article than were IO a single machine game. Manufactures should know that many of our readers have asked for games to be translated. Apple users want EASTERN FRONT luck) and Atari users want COMPUTER BASEBALL (see Industry News). Avalon Hill has from the start tried to put their games on a variety of machines. This is to their credit. However, the problem with translations, as mentioned in prior comments, is that the translated version of a game often does not make use of the capabilities unique to that machine. Even if Chris Crawford wanted to translate EASTERN FRONT to the Apple (don't count on it) it would be a monumental task to get the Apple to scroll in the way that the Atari does (but not impossible, look at Dan Gorlin's CHOPLIFTER!).]

The Reader Input Device is a great idea.

I want to thank Mark Marlow for his Wizardry article. Without those clues I would still be stuck on level 9.

TREK (from p.42)

The game takes about three minutes to boot up, drawing an introduction listing the name of the game and its authors. By pressing the joystick button the skill level mode is drawn on the screen. The player has fifty skill levels to choose from. Each level is progressive in difficulty. At skill levels forty and above, the player begins with a damaged ship, making it difficult to win due to low power supply.

The game uses high resolution graphics which are excellent. Everything is finely detailed, down to the portholes on the Vegan ship. Positron and Meson weapon graphics are very defined and have believable sounds. The game is well documented, providing a user manual which covers all aspects of playing the game.

The game is quite exciting. I was constantly torn between redistributing power and firing weapons. The power readings had to be constantly checked while trying to manuever in close enough to the enemy for a good shot. All this while desperately trying to squeeze more power into the weapon systems.

There are, however, two problems with the game: it constantly accesses the disk slowing the game down; and the destruction sequence lacks flare. The destruct sequence is a bright flash, no explosion sounds, with a message on a bright yellow background stating which ship was destroyed. Despite these minor flaws, the strategist will enjoy the game, but those who like arcade games might well look somewhere else.

Hosea Battles, Jr.

PIRACY (from p.10)

things just marginally higher than media cost to keep this from happening." Mark Pelczarski, of Penguin Software, is to be applauded for spearheading this movement. The majority of people, by far, respect the integrity of the software's copyright. Industry watches were amazed by the following comment from the August 1982 "Softalk" Top 30 report; "A fourth change in the marketplace is the unexpected strength of several unprotected pieces of software in the Hobby Ten list. For the second consecutive month, seven of the top ten entries are not copy-protected." The winds of change are blowing gale force through the industry, and only after the storm passes, will we know which companies planned the wisest for it.

MISSION (from p. 11)

always has towers around it, and always has a missile station nearby. This mission is very exciting. I have seen joysticks pulled out over this one. Once the headquarters is hit, the game continues briefly before you read, "Mission 5 - COMPLETE". I have seen people destroyed in that brief period after hitting the headquarters, so watch out. When mission fire is completed you will be congratulated and given bonus points, from 0 to 16,000. You may then go back to prior missions and accumulate higher scores.

The first thought that occurs to many, after hitting the headquarters in mission five, is to get on mission one and stay there forever building up your score. It does not work that way. True, it is easy not to get blown up on mission one. But there are three problems. 1) While getting points you must avoid hitting the radar, not an easy task. After passing a few, they appear more frequently. You'll hit one eventually. 2) You can be blown up. It's easy to avoid at first, but after 5 minutes your piloting ability weakens. And 3) The houses, water towers, etc. on mission one are not worth as many points as the targets in the other missions. Other missions which give bonuses are better in terms of building your score. I have found that mission three gives me the best chance to earn high scores.

The game is finished when you reach 100,000 points, probably because the score section only holds five digits. If you reach this point, score will read 99,990 and you will get the note "GREAT PERFORMANCE". Anybody who can do this is a true Star Blazer.

The only "flaw" I have discovered in the program occurs when you catch your supplies at the exact moment that you run out of fuel. This results in all obstacles disappearing from the screen. Your ship also disappears, but the exhaust fire moves across the screen at the constant altitude where you were destroyed. From here, the keyboard and joystick have no effect, and the game must be re-booted.

The game is enjoyable for almost all gaming types. The only disappointment is the sudden ending after that terrific build-up. STARBLAZER must be seen to be truly appreciated.

HEROIC (from p.13)

order, which included many actions of a non-combative nature and one major order (generally a combat or move order). Additionally characters can do such things as speak. A speech order would appear on your next turn's print out. Anyone in the room where the character spoke would get the speech on his/her print out. In this manner players can communicate with one another. When my party encountered another party on turn 34 I made overtures of peace, hoping to have an exchange of information about the dungeon. However I was met with. . .

. . . TREACHERY!!!

While sending into FB my orders for turn 35 which included speeches of peace, the other player was sending in orders which led to an all out attack by his characters, the evil "Meter" clan. My response to this evil deed, a deed which had caused the death of my group's leader—fair Pelmen the Prophet, was immediate: revenge! However, while my characters swore "Death to the Meters" they were cut down by the more experienced player who controlled the Meters. I learned several things about combat in that encounter: 1) Kill first, ask questions later; 2) Try to take your opponent's potions from him during the fracas. These potions (strength and healing) can be drunk during combat to increase strength or restore constitution. Increased strength helps you to mound a devastating attack. My more experienced opponent ordered his characters to drink a potion in hand, take others from my characters (to be used on the next or later turns) and then unlease a crushing potion-enhanced attack—all in the same turn.

HF allows a player whose group has been severly weakened through the death of several characters to send in a "rescue" party. The player can create new characters to enter the dungeon and "rescue" the other group. On turn 36 I was given the option of sending in such a "revenge", uh, I mean "rescue" group. Watch out Meters, I know how to play the game now!

Flying Buffalo's address is: Flying Buffalo Inc., Box 1467 — Dept. CG, Scottsdale, AZ. 85252. Both *Heroic Fantasy* and *Starweb* can be played over *The Source* or through the mail.

GLADIATORS (from p. 20)

a series of combats into a 'quest'. Since both experience and weapon skills increase as you hit more opponents and survive more combats, you can experience an almost paternal/maternal pride in watching your gladiators improve and progress (if they survive!) My strongest team, led by the human, "Dead-eye" Drak, and the Robot, Apl-2, had difficulty with five fledgling CYGNIANS at first, but can now take on a team of experienced robots reinforced by Banshees and Monsters with a good chance of survival.

UTILITIES

SSI has always been good with their utilities (COMPUTER BASEBALL, COMPUTER QUARTERBACK, etc) but they're getting even better. Naturally, you can save a game in progress at any time, and automatically return to the same to continue playing, but you can change from a two-player version to the computer as an opponent version in mid-game! This is great for when a friend drops over and wants to join in, as well as when he/she has to leave in mid-game. You can create your own monsters, your own teams, and your own battlefields, saving them all for future use if you wish. For any team you can add or drop gladiators, change their weapons, armor, or names, and even merge one team with another.

There wasn't anything that I wanted to do that the system wouldn't allow, except to scan the contents of a particular team without being in the preparatory stages of a game. After a while the disc has so many different teams that it's hard to remember which is which. This problem can be reduced by making up two letter codes (to be included in the file name) which describe the nature of the stored team.

GENERAL SUGGESTIONS

I found the medium range battlefield to be the most enjoyable, since it was large enough to allow maneuvering, while still showing both weapon and armor silhouettes on the map display. (The limitations of the Apple II's graphic capabilities wouldn't allow these symbols to show on the long range map.) The random map generation option with a crowded terrain seemed to produce the most cerebral two player games, although the computer tends to become confused if the terrain is crowded.

The computer opponent in GG is not as challenging as in other SSI games. After your first few battles, you'll have to give it a handicap to keep things interesting. The Designer Notes included in the rule book suggests an extra two gladiators for the computer as a guideline, which generally gave a pretty good game. The game system's ability to switch sides in the middle of the game will need to be used occasionally to extract the computer's units from illogical positions.

HINTS ON TACTICS

Combined Arms tactics work just as well in the 28th Century as they do today. A team with four good Phasors, a pair of strong melee fighters with perhaps an *Oranguphin* for its gemstones seems to work well. The Phasor users can be divided into two teams. Concentrate your fire with one two-member team on the most vulnerable enemy. Hopefully the first shot will stun your opponent, and the second shot will kill or wound (either result eliminates the target). If not, then your melee attacking gladiator will be facing a stunned opponent who will be easily butchered. In addition, the second of your Phasor teams will be able to fire on the next turn, while the first team is reloading. This can save you from the embarrassment of having all your phasor teams reloading while the enemy comes charging out of the trees at you!

In the developmental stages build your skills with one weapon at a time, don't change weapons after each combat. It is definitely better to be a master with one weapon rather than mediocre with three or four. By the way, when preparing for a battle, remember to rearm any gaper or gemstone users. Otherwise they'll end up with nothing but their hands to fight with! Finally, know the combat formulae and the capabilities of your fighters in order to formulate the best possible strategy for a given team on a given battlefield.

CONCLUSIONS

Easy to learn and fast to play, GG is a great starter game for "arcaders" who've never tried a "wargame" before. But, much like chess, it will take a long time to really feel like you've mastered this game (I sure haven't!) and the possibilities are endless.

CYTRON (from p. 30)

2) DIRECT gives Cytrons individual movement instructions. But, this is time consuming and can be avoided by using a Commander.
3) ORDER permits a manager to relay instructions to a group of Cytrons through a Commander-type Cytron.
4) LOCATE positions the Beam Point anywhere on your side of the play field.

Victory is achieved through the destruction of your opponent's Command Center. Maneuvering a mine into your opponent's Command Center is the only way to accomplish this. Each player begins the game with four Power Centers which supply him with the needed materials and energy for producing Cytrons. If a player is careless, his opponent will take control of his centers—stopping him dead in his tracks! Although it is not necessary to capture the Power Centers to win, this reduction in force simplifies the task (see *Hints Toward Victory*). And what do you do if you lack another human manager? Well, just sit down to a bout against the computer. You may engage the computer at three levels, Beginner, Master and Grand Master. The level most suitable to you will quickly become apparent. Good luck with the Grand Master; you will need it! On the topic of scores, you will be doing well to get 20,000 points on the Grand Master level, 10,000 on the Master and 5,000 on the Beginner.

If you are assuming an offensive position, you will find that a close group of Cytrons is extremely vulnerable to missile attack. Spacing out the Cytrons will reduce this risk. On the one-play version, significant advancing threats will be attacked by missile, so keep your inter-group distance. Of course, the Commander has to be within ORDERing distance of the other units. One useful technique to recapture a Power Center is to beam a mine into the middle of it. Since mines are cheap, you can usually afford to sacrifice one. Also, in the heat of battle, a Manager can sometimes slip a lone mine through enemy lines to defeat his unsuspecting opponent!

Cytron Masters is an exciting game offering multiple levels of play with variations to suit the individual: Play on all levels guarantees an action-packed episode of futuristic combat. By the way, all you Atari owners will be happy to hear that your version is well in the works.

GUADALCANAL (from p. 19)

enjoyable, and will make up for those boring (and frustrating) times when the U.S. fleet is inept, unprepared, and refitting. This writer's personal favorite for strategic choices is to jump into the Shortlands during the day with two previously unscratched surface and carrier task forces and pick on anything smaller and weaker (cruisers, transports, destroyers, it doesn't really matter as long as they get sunk). If this tactic is followed, the Japanese destroyer arm begins to show signs of strain late in the campaign, provided of course that U.S. losses are minimal.

The ground battle on Guadalcanal goes one of two ways; either you have obvious superiority or you don't. If you do not have overwhelming ground superiority, don't worry about it, just keep those marines from starving (with a few points of supply as spares if possible) and time will be on your side. It's really amazing what 25,000+ marines that are fully supplied can do when the game is gearing down in December. Air reinforcements to Henderson should be directly tied to the condition of supplies on Guadalcanal and the position of the U.S. fleet, as it doesn't do the U.S. player any good to have precious Henderson planes obliterated by Japanese night bombardments. Late in the game, Henderson makes a wonderful ASW (anti-submarine warfare) base, and two Japanese subs potted every three days is the running average, when 15+ SBD's are allocated to attack subs spotted with unemployed TBD's.

About those otherwise minimally useful B-17's: they're great for two things and two things only; bombing Japanese supplies on Guadalcanal so that the Japanese can't attack properly; and finding enemy task forces. Look at the Japanese arrival dates for things like carriers and transports: they are victory points on the hoof if you can catch them. American carrier activity should be timed to intercept Japanese carrier and transport activity, as well as the "shortland free-for-all" when you just want to sink something.

U.S. submarines should be placed two squares S of Choiseul (a favorite meeting place of Japanese task forces). You won't sink very much on the average but the rewarding "squish" of sinking some hapless cripple will absolutely make your day. The Japanese submarines park two hexes SE of San Cristobal, so the best approach to Henderson for T and FT groups would be well to the north and east of this position. Watch out for the Japanese CV's around August 24th though, as they will approach this area from about five squares north of Malaita. The three Japanese CV's prefer to park in the vicinity of three squares E of San Cristobal: that's where you should seek them when your CV's are ready.

The main points to remember after the game system is mastered are to rotate your fleet in the triangle of Espiritu Santo - Guadalcanal - the Shortlands -Brisbane - Espiritu Santo, in keeping with the cyclical nature of activity for the U.S. fleet; and to time such activity to meet threats and possibilities. Victory in this game is very much an all or nothing affair, so don't penny-pack anything except for the "T" and "FT" missions, which will need 6-10 DD's each for escort.

SUMMARY

It is this writer's opinion that GUADALCANAL CAMPAIGN is the best historical simulation (and one of their best games) from SSI to date. The essential aspects of historicity and playability are well-matched, with easy accessibility of gaming information, a well-organized set of rules, and good research combining to provide for a game that will keep you at your computer for days at a time.

GETTYSBURG (from p.22)

the Confederates, and both recover (slowly) during rests.

A final difference is that TRTG allows you to resolve each battle *outside the computer* using rules for boardgame or miniatures. This allows the game to be used to generate plausible scenarios for some other gaming system.

THE ROAD TO GETTYSBURG is a typical *SSI* product; excellent production and packaging, a well-done (bug-free as near as I can tell) program, an authentic simulation of an historical event and a challenging game. Game length is about four hours and there is a save option. There is also a shorter scenario that portrays just the Battle of Gettysburg as it actually developed. As the game will appeal mostly to wargamers who own Apples, its major failing — not being easy to learn or understand — may not be too serious. If you're new to wargaming, and are interested in The War Between The States, I'd suggest you start with the much simpler **BATTLE OF SHILOH**. If you want the best that's available, TRTG is it.

STARSHIP (from p. 34)

USING THE BLUFF:

The *Vegans* can be bluffed into thinking that you are going to self-destruct. If they fall for it, they will back off for two or more turns and not fire a shot. This comes in handy when a shield that is facing the enemy is damaged or if you wish to break off the attack by putting 6500 megameters between you and the closest Vegan ship. But, do not fire a shot, as this will give away that you are bluffing.

It should be noted that even if they claim that they are not falling for the bluff, some of their commanders will still back off. The only real way to see if they fall for it is by their action. The bluff seldom works more than once.

PLAYING DEAD:

Playing dead is done by completely lowering the shields facing the enemy vessels and not firing a shot. The probability is 50/50 per vessel, that any single ship will fire on you.

GAME DESIGN

STARSHIP COMMANDER is so complex that most of the possible tactics that can be employed have not yet been explored. This is mainly due to the way the game was designed. The game was first taken from a conceptual standpoint. The scope of the game was first defined listing all the factors that would be involved. Next, the game was broken down into stations; each of which was designed, programed, and tested separately.

It wasn't until all the stations and logic modules were finished that we were able to see how the game would play. The interactions of all the factors created some unexpected results. The Vegans appear to act more intelligently than was called for in the original programming. Crew, system, and energy management played even more important roles than were originally designed. The program had the feel of a true simulation. Unlike most games where shooting and firing occupies 90% of your time, STARSHIP COMMANDER closely reflects the activities of a complex vessel such as the USS Ranger.

I hope you enjoy this game as much as I did when I first played it.

— Good luck.

READER INPUT DEVICE #4

GAMES

Rate the following games using a scale of 1 (terrible) to 9 (outstanding) for each of the catagories below:

PRESENTATION: Rate overall prsentation of the game. This includes such factors as graphics, sound, packaging, documentation. **GAME DESIGN:** Rate the game design itself. Apart from the presentation is the game well designed, playable, interesting? Are there problems in the design which make the game less than it should be?; **LIFE:** Does the game wear well? Does one bore of the game easily or does it still command interest after multiple plays?

Enter "O" in the first box for any game which you have not played or have not played enough to have formed an opinion.

1. A2-PB1 PINBALL (SUBLOGIC)
2. ALIBI (HAYDEN)
3. BATTLETREK (VOYAGER)
4. BEZ-OFF (BEZ)
5. CANNONBALL BLITZ (ON-LINE)
6. COMPUTER GIN RUMMY (DATAMOST)
7. CURSE OF RA (EPYX)
8. CYTRON MASTERS (SSI
9. ESCAPE FROM RUNGISTAN (SIRIUS)
10. FALCONS (PICCADILLY)
11. FORE! (EPYX)
12. GALACTIC GLADIATORS (SSI)
13. GUADALCANAL CAMPAIGN (SSI)
14. HI-RES COMPUTER GOLF (AVANT -GARDE)
15. INVASION ORION (EPYX)
16. RASTER BLASTER (BUDGE CO.)
17. SERPENTINE (BRODERBUND)
18. SNACK ATTACK (DATAMOST)
19. STAR BLAZER (BRODERBUND)
20. ULTIMA (CALIFORNIA PACIFIC)
21. ZERO GRAVITY PINBALL (AVANT -GARDE)
22. ZORK II (INFOCOM)

ARTICLES

Rate the articles in this issue on a scale of 1 (terrible) to 9 outstanding). If the article does not interest you enter 0. Use "PRS" box.

23. SOFTWARE PIRACY:
24. INSIDE THE INDUSTRY
25. ATARI: HUMAN CONNECTION
26. LABYRINTHINE
27. GUADALCANAL REVIEW
28. GALACTIC GLADIATORS REVIEW
29. ROAD TO GETTYSBURG REVIEW
30. STAR WARS MEETS GLADIATORS
31. ROUTE 80
32. CYTRON MASTERS: PLAY TESTER
33. STARSHIP COMM.: DESIGNER NOTES
34. REAL WORLD GAMING
35. INVASION ORION SCENARIOS
36. HEROIC FANTASY REVIEW
37. MISSION 5—COMPLETE
38. R.I.D. RESULTS AND COMMENTS

MISCELLANEOUS

(Use "PRS" box)

39. What computer system do you own? 1 = Apple; 2 = Atari; 3 = TRS-80; 4 = Pet; 5 = IBM; 6 = Other (specify)
40. Outside of games for personal computers, what kind of games do you play? (Enter all that are applicable): 1 = Home video games; 2 = Coin-op games; 3 = Board wargames; 4 = Role-playing games (such as D&D); 5 = Sci-fi board games; 6 = Miniatures; 7 = Classic games (Chess, Backgammon, etc.).
8 = Other (specify)

A. Do you prefer buying game programs from discount mail order houses or from local retailers? Why?

B. How much do you spend each month on 1) computer game software; 2) Coin-op games; 3) Non-computer games.

C. Other comments

RESULTS OF R.I.D. #3

There were 118 Reader Input Devices turned in by press time for this issue. Apple users continue to dominate the readership (55%) but Atari users went up to 35% on this issue. All but four of the games offered for review in R.I.D.#3 received enough responses to be included in the results. Any game that is not reviewed by at least 10% of the user group(s) to which the game belongs (Apple, Atari, combinations, etc.) will not have any results listed. The numbers could not be considered significant.

The "% Play" column indicates what percentage of the respondents which have the appropriate machine have played the game. For example, THE WARP FACTOR was played and evaluated by 60% of the respondents who have an Apple II or an IBM PC.

GAME	PUBLISHER	MACHINE (S)	COMPOSITE	PRESENTATION	DESIGN	LIFE	% PLAY
1. CHOPLIFTER	BRODERBUND	AP	7.71	7.90	8.09	7.14	51
2. KNIGHT OF DIAMONDS	SIR-TECH	AP	7.66	7.71	7.85	7.42	34
3. PURSUIT OF THE GRAF SPEE	SSI	AP	7.60	8.00	7.80	7.00	12
4. RENDEZVOUS	EDU-WARE	AP	7.53	7.83	7.75	7.00	29
5. DEADLINE	INFOCOM	MANY	6.97	7.84	7.00	6.07	18
6. WARP FACTOR	SSI	AP,IBM	6.71	6.88	6.69	6.57	60
7. CASINO	DATAMOST	AP	6.41	7.00	7.00	5.25	10
8. STARSHIP COMMANDER	VOYAGER	AP	6.33	6.19	7.00	5.80	12
9. CANNONBALL BLITZ	ON-LINE	AP	6.26	6.40	6.46	5.93	37
10. APVENTURE TO ATLANTIS	SYNERGISTIC	AP	6.20	6.69	6.50	5.40	24
11. TEMPLE OF APSHAI	EPYX	MANY	6.08	6.54	6.22	5.47	59
12. EMPIRE OF OVERMIND	AH	MANY	5.80	6.06	5.80	5.53	21
13. LABYRINTH	BRODERBUND	AP	5.74	5.66	6.00	5.55	22
14. CHICKEN	SYNAPSE	AT	5.54	6.25	5.25	5.12	32
15. GUNS OF FT. DEFIANCE	AH	MANY	5.36	5.91	5.66	4.50	16
16. BEZ—MX	BEZ	AP	5.33	5.50	5.75	4.75	10
17. KABUL SPY	SIRIUS	AP	5.29	6.25	5.62	4.00	20
18. CONTROLLER	AH	AT	5.13	5.59	5.00	4.80	20
19. CONGLOMERATES COLLIDE	ROCKROY	AP	4.91	6.25	4.75	3.75	10
20. FIREBUG	MUSE	AP	4.84	4.88	4.88	4.77	22

The games that were not played/reviewed by at least 10% of the readers were Wall Street (CE Software), Stocks and Bonds (AH), Jabbertalky (Automated Simulations), Horse Racing Classic (Tazumi). Horse Racing Classic was reviewed by only 8% of our Apple users, but they gave it a whopping 8.00 composite score. While the numbers can not be trusted because of the low number of responses, it is an interesting score. We will include Horse Racing Classic in a future R.I.D.

The top rated game is no surprise. CHOPLIFTER!, which has only been out a short time has already been played by over 50% of our respondents. They like the game and rate it highest of the games offered for review in R.I.D.#3. Three other games follow closely behind Choplifter!. They are KNIGHT OF DIAMONDS (7.66), PURSUIT OF THE GRAF SPEE (7.60), and RENDEZVOUS (7.53). DEADLINE Leads the list of games that run on something other than, or in addition to, the Apple. It came in 5th with a 6.97 composite. Voyager Software's STARSHIP COMMANDER made a good showing in 8th place. However, like Graf Spee and CASINO, it has not been played by a large number of Apple users. TEMPLE OF APSHAI came in 11th (6.08) which is commendable for a game that came out in 1979.

CGW finds it surprising that FIREBUG from Muse Software came in 20th (4.84). We find it an interesting game that requires some thinking and dexterity. Evidently low-res graphics just don't cut it with gamers anymore.

THE WARP FACTOR (60%) just barely nudged out TEMPLE OF APSHAI (59%) as the game most played among RID#3 titles. However, neither come close to challenging EASTERN FRONT's 89% rating in RID#2. CHOPLIFTER's 51% rating is remarkable considering that the game has only been out for about four months.

With this issue we begin the COMPUTER GAMING WORLD TOP 10. The ten games that make the list will be the ten highest rated games from the various RIDs. Beginning with the next issue a few of the Top 10 games will be cycled back into a RID for re-evaluation.

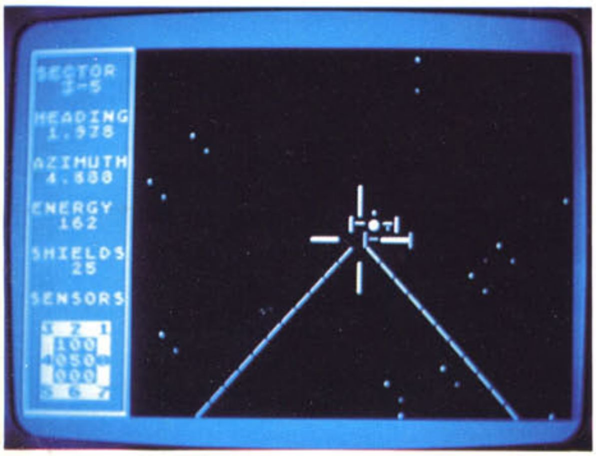
Computer Gaming World Top 10

	GAME	PUBLISHER	RATING	ISSUE
1.	WIZARDRY	SIR-TECH	8.25	2.4
2.	COMPUTER BASEBALL	SSI	7.80	2.4
3.	OLYMPIC DECATHALON	MICROSOFT	7.79	2.4
4.	CHOPLIFTER	BRODERBUND	7.71	2.5
5.	SOUTHERN COMMAND	SSI	7.71	2.4
6.	KNIGHT OF DIAMONDS	SIR TECH	7.66	2.5
7.	PURSUIT OF THE GRAF SPEE	SSI	7.60	2.5
8.	RENDEZVOUS	EDU-WARE	7.53	2.5
9.	CARTELS & CUTHROATS	SSI	7.26	2.4
10.	EASTERN FRONT	ATARI PE	7.25	2.4

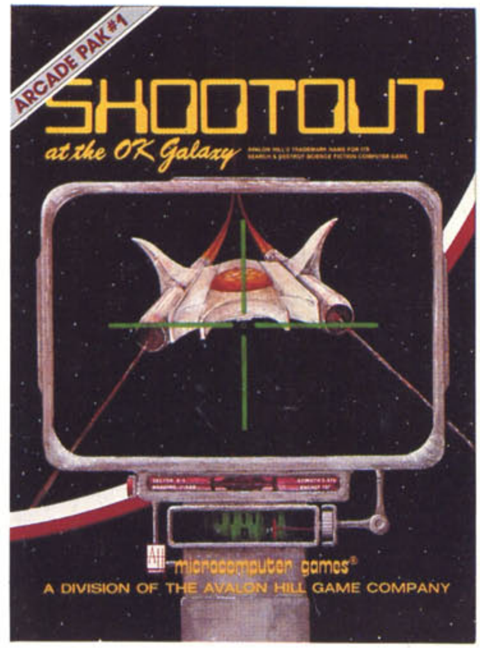
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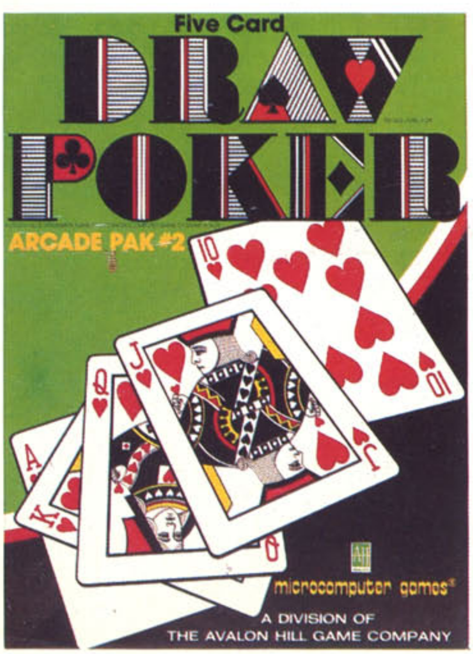
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at the OK Galaxy



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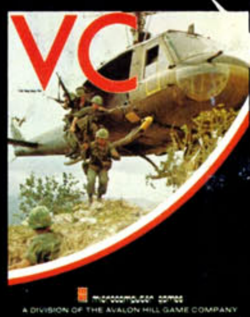


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